





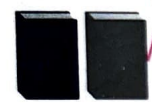





Chapter 1 Numbers to 10

Exercise 1

Basics

1 Match.

Match the objects to the numbers 1 to 10.

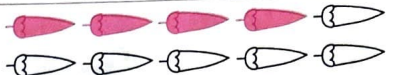
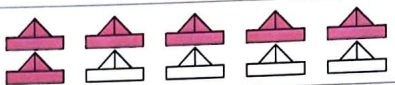


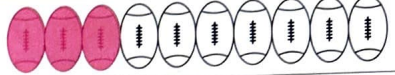
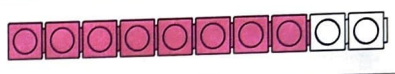
	
	
	
	
	

Numbers: 1 one, 2 two, 3 three, 4 four, 5 five, 6 six, 7 seven, 8 eight, 9 nine, 10 ten

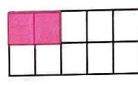
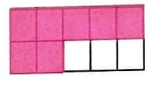

Practice

Check that students have colored the correct number.

2 Color how many.

4	
6	
10	
5	
3	
8	

2      7      9

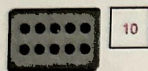
		
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Exercise 2

Basics

1 Write how many ●.



10



5



9



4



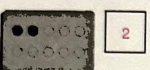
8



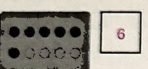
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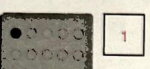
7



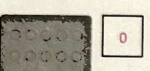
2



6



1



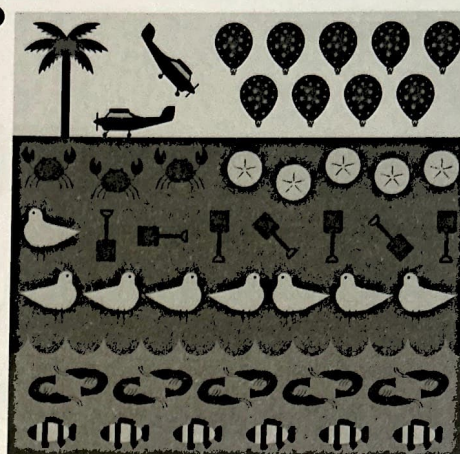
0

1-2 The Number 0

3

Practice

2



Write how many.



8



7



2



10



5



9



6



3

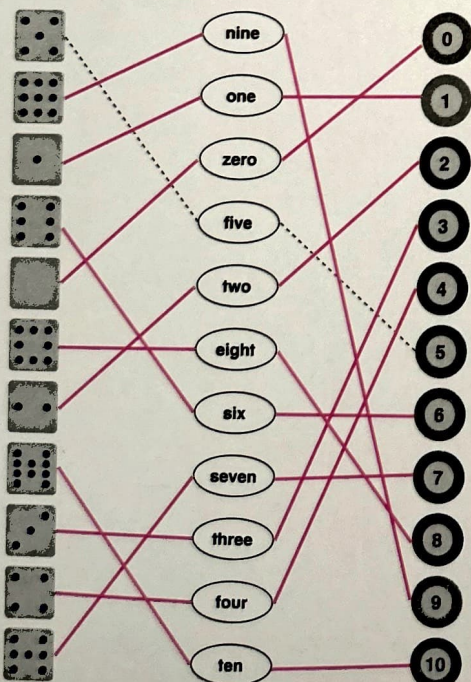


0

1-2 The Number 0

4

3 Match.



1-2 The Number 0

5

4 Write the numbers.

zero 0

four 4

two 2

eight 8

nine 9

one 1

three 3

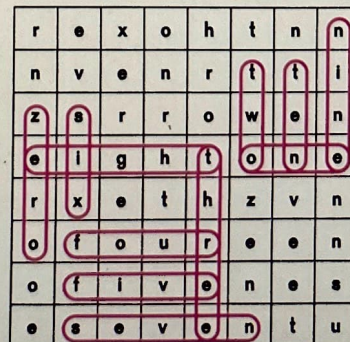
seven 7

ten 10

five 5

5 Find and circle the number words in the puzzle. The words go across or down.

• zero  
• one  
• two  
• three  
• four  
• five  
• six  
• seven  
• eight  
• nine  
• ten



1-2 The Number 0

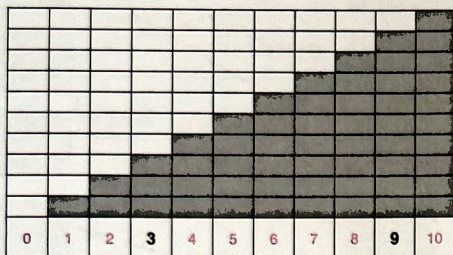
6



Exercise 3

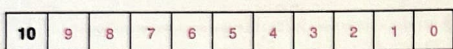
Basics

1 Write the missing numbers.



Practice

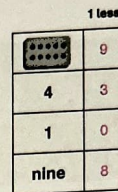
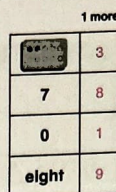
2 Count back.  
Write the numbers.



3 Write the missing numbers.



4 Write the number that is...

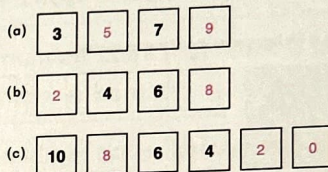


5 Write the missing numbers in the white boxes.  
Some numbers are hidden.



Challenge

6 Write the missing numbers to complete each number pattern.



Exercise 4

Basics



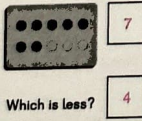
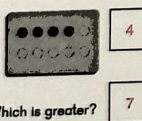
There are 8.

There are 5.

Which is more?

Which is fewer?

2 Write the missing numbers.

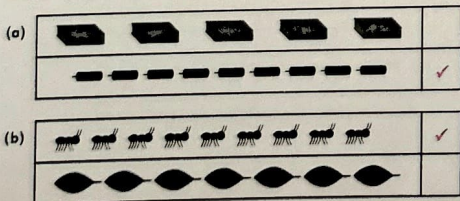


Which is greater?

Which is less?

Practice

3 Check ✓ the set that has more.



4



Salmon: 8  
Hermit Crabs: 7  
Angelfish: 7  
Turtles: 6

Circle the correct one.

(a) There are more than .

(b) There are fewer than .

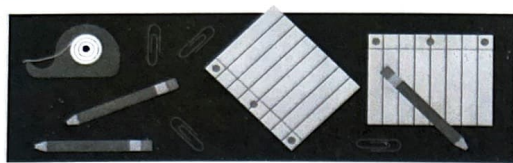
(c) There are the same number of as .



Exercise 5

Check

1



(a) How many ?

4

(b) How many ?

3

(c) How many ?

2

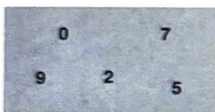
(d) How many ?

1

(e) How many ?

0

2 Write the numbers in the box in order from least to greatest.

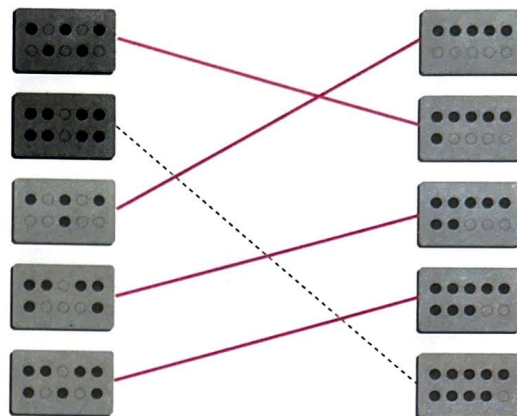


0 2 5 7 9

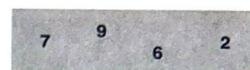
1-5 Practice

11

3 Match each card on the left to the one on the right that has 1 more ●.



4 Write a number from the box to make each sentence true.



(a) 7 or 9 is greater than 6.

(b) 2 is less than 6.

(c) 2 is the least number.

(d) 9 is the greatest number.

12

1-5 Practice

Students can write the numbers of each type next to one of the objects of that type.

Birds: 2

Butterflies: 5

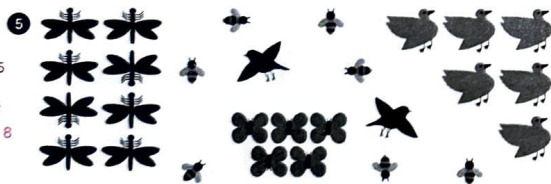
Ducks: 6

Ladybugs: 7

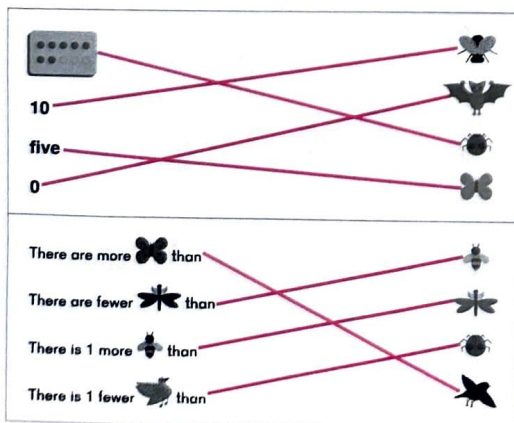
Dragonflies: 8

Bees: 9

Flies: 10



Match.



1-5 Practice

13

Challenge

6 Cross out the greatest number.

Circle all the numbers that are less than 6.



7 What number is...

(a) 2 less than 7? 5

(b) 2 more than 7? 9

(c) 2 less than 2? 0

(d) 3 more than 0? 3

8 (a) What numbers are greater than 4 and less than 9?

5, 6, 7, 8

(b) What numbers are less than 6 and greater than 3?

4, 5

14

1-5 Practice



## Exercise 1 • pages 15 – 16

### Chapter 2 Number Bonds

#### Exercise 1

##### Basics

1 Complete the number bonds.

(a) whole  $\begin{matrix} 3 \\ 2 \end{matrix}$  part

(b)  $\begin{matrix} 4 \\ 2 \end{matrix}$

(c)  $\begin{matrix} 3 \\ 3 \end{matrix}$

(d)  $\begin{matrix} 6 \\ 4 \end{matrix}$

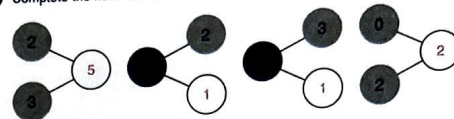
(e)  $\begin{matrix} 0 \\ 3 \end{matrix}$

2-1 Make 6

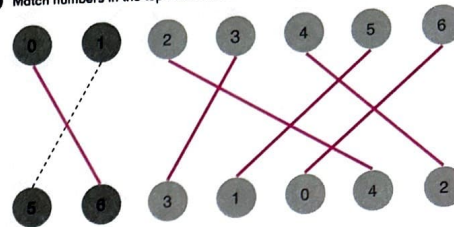
15

##### Practice

2 Complete the number bonds.



3 Match numbers in the top row to numbers in the bottom row to make 6.



- 4 (a) 5 and  $\boxed{1}$  make 6. (b)  $\boxed{2}$  and 4 make 6.  
 (c) 6 is 3 and  $\boxed{3}$ . (d) 0 and  $\boxed{6}$  make 6.  
 (e)  $\boxed{1}$  and 5 make 6. (f) 6 is  $\boxed{4}$  and 2.  
 (g) 3 and 3 make  $\boxed{6}$ . (h) 6 and  $\boxed{0}$  make 6.

16

2-1 Make 6

## Exercise 2 • pages 17 – 18

#### Exercise 2

##### Basics

1 Draw the missing parts to make 7, then write the missing numbers.

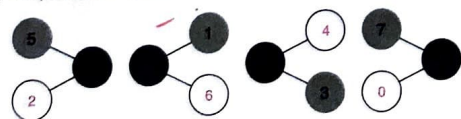
$\begin{matrix} 6 \\ 1 \end{matrix}$  6 and  $\boxed{1}$  make 7.

$\begin{matrix} 3 \\ 4 \end{matrix}$  7 is  $\boxed{3}$  and 4.

$\begin{matrix} 5 \\ 2 \end{matrix}$   $\boxed{5}$  and 2 is 7.

##### Practice

2 Complete the number bonds.



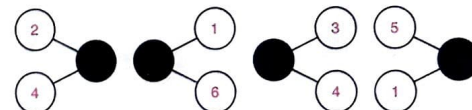
2-2 Make 7

17

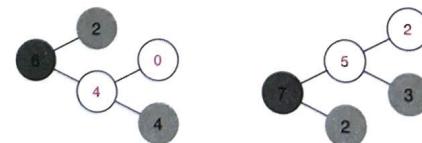
3 Color each set of 2 numbers next to each other that make 7.

6	1	3	4	6
5	7	8	3	2
7	4	1	0	9
9	1	4	7	5
2	8	7	5	3
0	6	8	2	6

4 Write numbers to make number bonds. Answers may vary.



5 Complete the number bonds.



18

2-2 Make 7

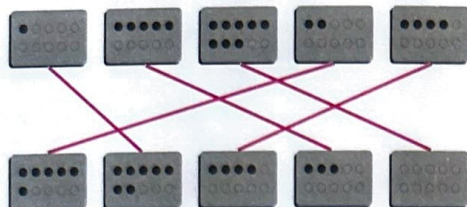


# Exercise 3 • pages 19 – 20

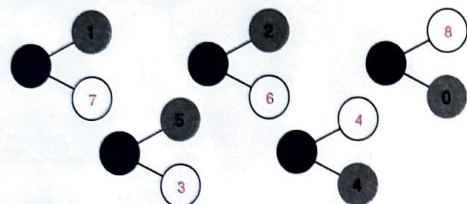
## Exercise 3

### Basics

- 1 Match each card in the top row with one in the bottom row to make 8.



- 2 Complete the number bonds.



### Practice

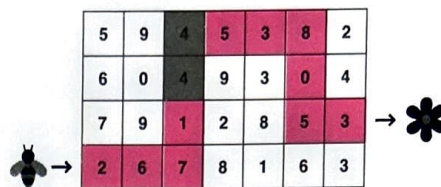
- 3 Circle 2 numbers in each box that together make 8.



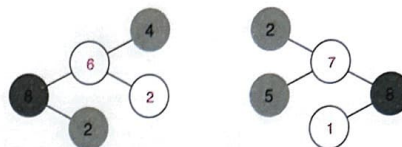
2-3 Make 8

19

- 4 Color each set of 2 numbers next to each other that make 8.



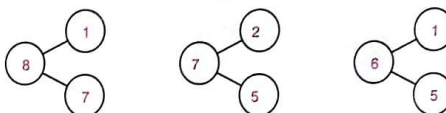
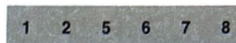
- 5 Complete the number bonds.



### Challenge

Hint for students: Fill in the greatest numbers in the wholes first.

- 6 Use all the numbers below to make 3 different number bonds.



20

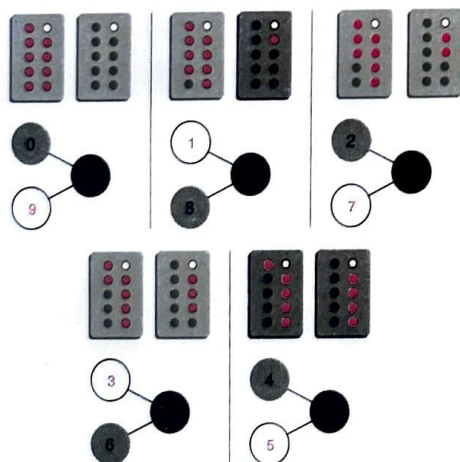
2-3 Make 8

# Exercise 4 • pages 21 – 22

## Exercise 4

### Basics

- 1 Color more dots on each card to make 9.  
Complete the number bonds.



### Practice

- 2 Circle 2 numbers in each box that together make 9.



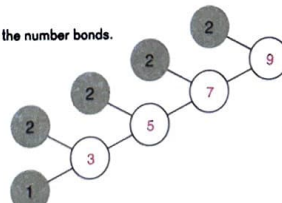
2-4 Make 9

21

- 3 Color each set of 2 numbers next to each other that make 9.

7	1	6	3	7
9	8	2	0	5
3	4	5	9	1
8	9	8	7	3
7	1	6	2	0

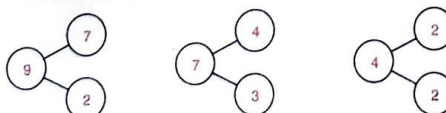
- 4 Complete the number bonds.



### Challenge

Hint: Students can again start by putting the greatest numbers in the wholes. In one bond they will use 2 twice.

- 5 Use all the numbers below to make 3 different number bonds.



22

2-4 Make 9

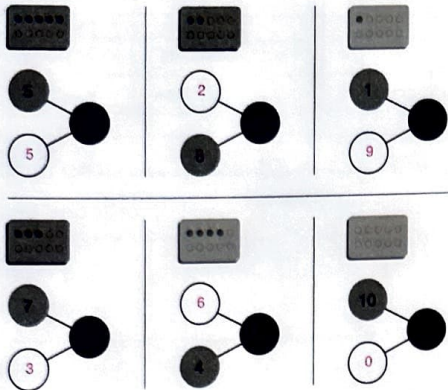


## Exercise 5 • pages 23 – 24

### Exercise 5

#### Basics

- 1 Complete the number bonds.



#### Practice

- 2 (a) 6 and 4 make 10. (b) 5 and 5 make 10.  
 (c) 10 is 2 and 8. (d) 0 and 6 make 6.  
 (e) 1 and 9 make 10. (f) 10 is 7 and 3.

2-5 Make 10 — Part 1

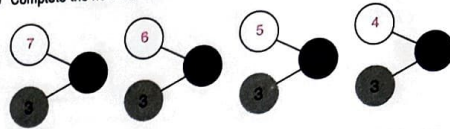
23

- 3 Circle each set of 2 numbers next to each other that make 10.  
Find 10 pairs.

9	5	8	1	3	5	4
1	3	2	4	7	2	6
8	4	4	1	5	5	1
5	9	3	2	1	7	2
5	8	7	4	9	6	8

Note: In this puzzle, there is no overlap of the pairs that make 10, and there are no pairs next to each other diagonally.

- 4 Complete the number bonds.

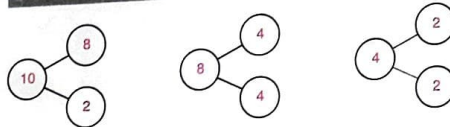


Note: From the Challenge in Exercise 4, students should realize they can reuse both 4 and 2.

#### Challenge

- 5 Use all the numbers below to make 3 different number bonds.

2 4 8 10



24

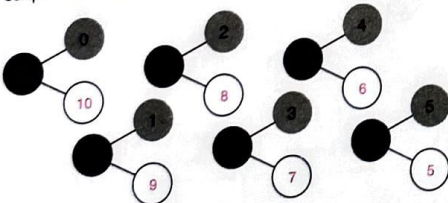
2-5 Make 10 — Part 1

## Exercise 6 • pages 25 – 26

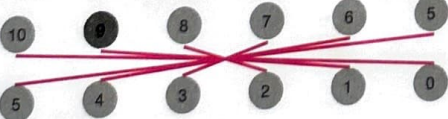
### Exercise 6

#### Basics

- 1 Complete the number bonds.



- 2 Match a number in the top row with a number in the bottom row to make 10.



#### Practice

- 3 Circle 2 numbers in each box that together make 10.

8	2	3	10	4	6	0	3	4	9
4	2	7	4	3	8	9	0	5	1
5	2	7	4	5	0	3	10	5	1

2-6 Make 10 — Part 2

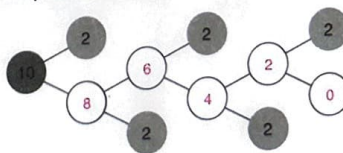
25

- 4 Circle each set of 2 numbers next to each other that make 10.  
The corners of the boxes they are in can be touching for them to be next to each other.  
Find 10 pairs.

1	8	3	4	2
8	9	7	8	5
2	5	10	4	5
5	6	9	7	6
4	2	1	6	3

Note: In this puzzle, there is no overlap of the pairs that make 10, but pairs can be next to each other diagonally.

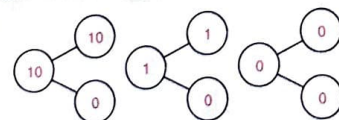
- 5 Complete the number bonds.



#### Challenge

- 6 Use all the numbers below to make 3 different number bonds.

0 1 10



Note: From their experience earlier, students may think to use 0 three times in one bond, though they have not seen this number bond.

26

2-6 Make 10 — Part 2

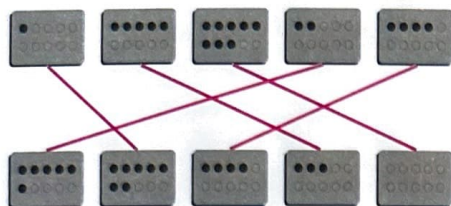


# Exercise 3 • pages 19 – 20

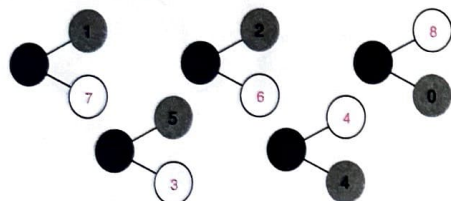
## Exercise 3

### Basics

- 1 Match each card in the top row with one in the bottom row to make 8.



- 2 Complete the number bonds.



### Practice

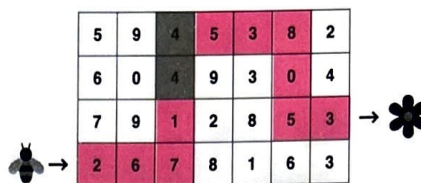
- 3 Circle 2 numbers in each box that together make 8.



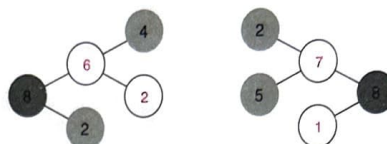
2-3 Make 8

19

- 4 Color each set of 2 numbers next to each other that make 8.



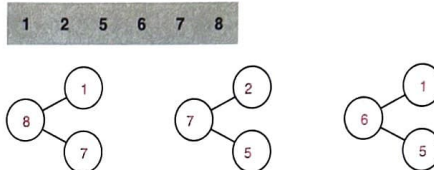
- 5 Complete the number bonds.



### Challenge

Hint for students: Fill in the greatest numbers in the wholes first.

- 6 Use all the numbers below to make 3 different number bonds.



20

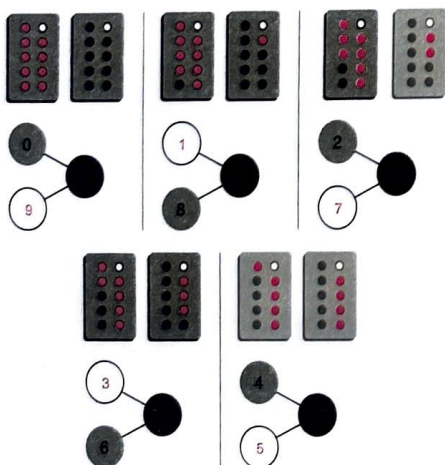
2-3 Make 8

# Exercise 4 • pages 21 – 22

## Exercise 4

### Basics

- 1 Color more dots on each card to make 9.  
Complete the number bonds.



### Practice

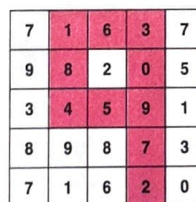
- 2 Circle 2 numbers in each box that together make 9.



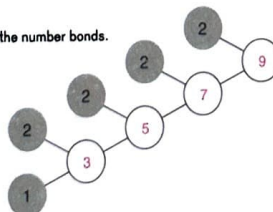
2-4 Make 9

21

- 3 Color each set of 2 numbers next to each other that make 9.



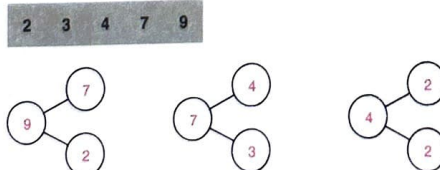
- 4 Complete the number bonds.



### Challenge

Hint: Students can again start by putting the greatest numbers in the wholes. In one bond they will use 2 twice.

- 5 Use all the numbers below to make 3 different number bonds.



22

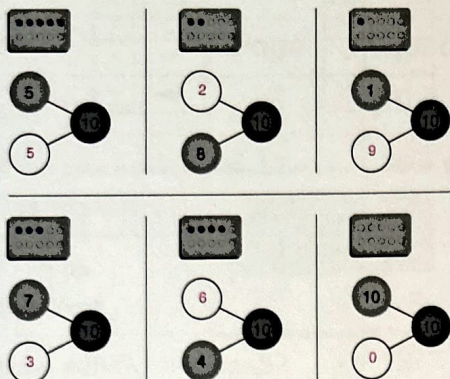
2-4 Make 9



Exercise 5

Basics

1 Complete the number bonds.



Practice

- 2 (a) 6 and 4 make 10. (b) 5 and 5 make 10.  
 (c) 10 is 2 and 8. (d) 0 and 6 make 6.  
 (e) 1 and 9 make 10. (f) 10 is 7 and 3.

2-5 Make 10 — Part 1

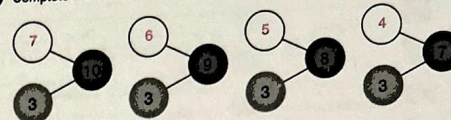
23

3 Circle each set of 2 numbers next to each other that make 10.  
Find 10 pairs.

9	5	8	1	3	5	4
1	3	2	4	7	2	6
6	4	4	1	5	5	1
5	9	3	2	1	7	2
5	8	7	4	9	6	8

Note: In this puzzle, there is no overlap of the pairs that make 10, and there are no pairs next to each other diagonally.

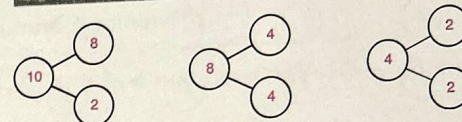
4 Complete the number bonds.



Challenge Note: From the Challenge in Exercise 4, students should realize they can reuse both 4 and 2.

5 Use all the numbers below to make 3 different number bonds.

2	4	8	10
---	---	---	----



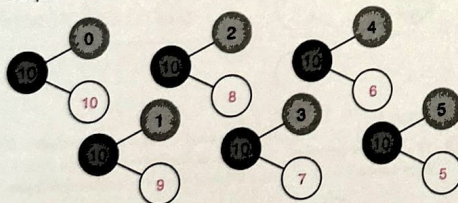
2-5 Make 10 — Part 1

24

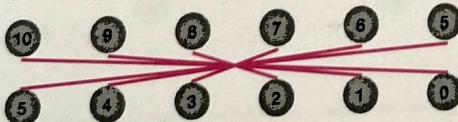
Exercise 6

Basics

1 Complete the number bonds.



2 Match a number in the top row with a number in the bottom row to make 10.



Practice

3 Circle 2 numbers in each box that together make 10.

8	2	3	10	4	6	0	3	4	9
4	2	7	4	3	8	9	0	5	1
5	2	7	4	5	0	3	10	5	1

2-5 Make 10 — Part 2

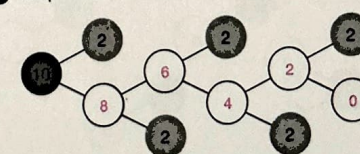
25

4 Circle each set of 2 numbers next to each other that make 10.  
The corners of the boxes they are in can be touching for them to be next to each other.  
Find 10 pairs.

1	8	3	4	2
8	9	7	8	5
2	5	10	4	5
5	6	9	7	6
4	2	1	6	3

Note: In this puzzle, there is no overlap of the pairs that make 10, but pairs can be next to each other diagonally.

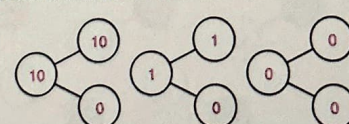
5 Complete the number bonds.



Challenge

6 Use all the numbers below to make 3 different number bonds.

0	1	10
---	---	----



Note: From their experience earlier, students may think to use 0 three times in one bond, though they have not seen this number bond.

2-5 Make 10 — Part 2

26



Exercise 7

Check

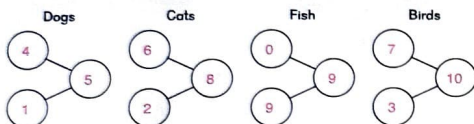
1



Write the number of...

	<u>4</u>		<u>1</u>	All Dogs <u>5</u> Cats <u>8</u> Fish <u>9</u> Birds <u>10</u>
	<u>6</u>		<u>2</u>	
	<u>0</u>		<u>8</u>	
	<u>7</u>		<u>3</u>	

Make number bonds for each.



2-7 Practice

27

2 Write the number that is...

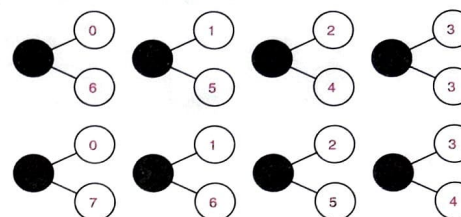
1 more	
6	7
eight	9
3	4
zero	1

1 less	
four	3
1	0
10	9
nine	8

3 Write the numbers in the box in order from greatest to least.

6	4	10	10	8	6	4	2
8	2						

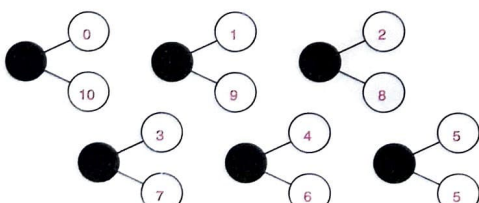
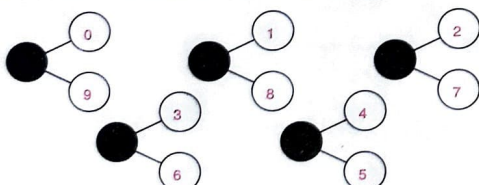
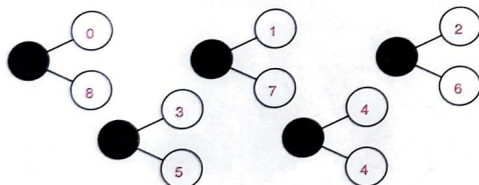
4 Show all the number bonds for 6 and 7.



28

2-7 Practice

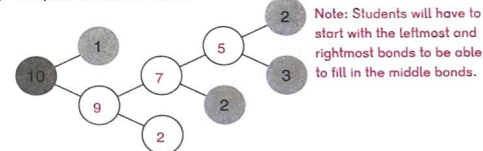
5 Show all the number bonds for 8, 9, and 10.



2-7 Practice

29

6 Complete the number bonds.

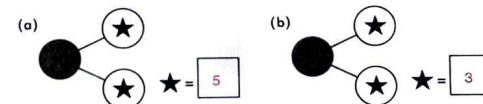


Note: Students will have to start with the leftmost and rightmost bonds to be able to fill in the middle bonds.

Challenge

7 ★ stands for a number. What number?

Note: (a) and (b) are separate problems. Students need to be aware that the same symbol can stand for a different number in a different problem.



8 Circle the numbers in the box that are less than 10 and greater than 4.

8	3	5	7	10	9
---	---	---	---	----	---

9 Circle each set of 2 numbers next to each other that make 10. Find 10 pairs.

8	6	5	5	5
4	2	8	7	9
6	7	3	9	1

Note: This puzzle is challenging because there is overlap.

30

2-7 Practice



### Chapter 3 Addition

#### Exercise 1

##### Basics

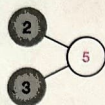


There are 2 big crabs.

There are 3 little crabs.

There are 5 crabs altogether.

two plus three equals  
2 + 3 = 5



##### Practice



There are 4 small boats.

There are 3 big boats.

There are 7 boats in all.

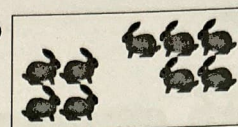
4 + 3 = 7

Note: Order of addends may vary.

3-1 Addition as Putting Together

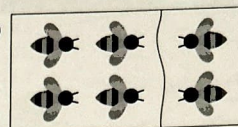
31

3 (a)



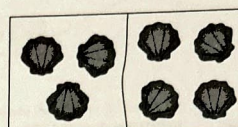
4 + 5 = 9

(b)



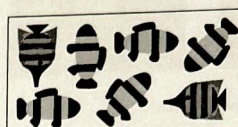
4 + 2 = 6

(c)



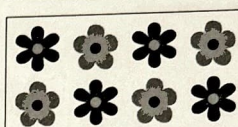
3 + 4 = 7

(d)



5 + 2 = 7

(e)



4 + 4 = 8

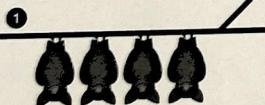
32

3-1 Addition as Putting Together

### Exercise 2 • pages 33 – 34

#### Exercise 2

##### Basics

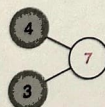


4 bats are in the tree.

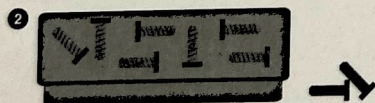
3 more bats come.

There are 7 bats altogether.

4 + 3 = 7



##### Practice



There are 7 screws in a tub.

Add 2 more.

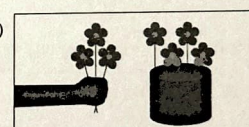
There are 9 screws in all.

7 + 2 = 9

3-2 Addition as Adding More

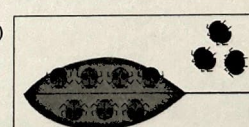
33

3 (a)



3 + 4 = 7

(b)



7 + 3 = 10

(c)



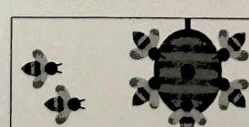
4 + 4 = 8

(d)



3 + 6 = 9

(e)



2 + 5 = 7

34

3-2 Addition as Adding More



Exercise 3

Basics

1

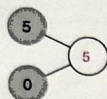


There are 5 ants on one log.

There are 0 ants on the other log.

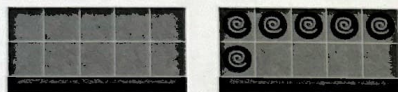
There are 5 ants altogether.

$$5 + 0 = \boxed{5}$$



Practice

2



There are 0 chocolates in one box.

There are 6 chocolates in another box.

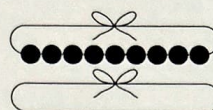
There are 6 chocolates in all.

$$\boxed{0} + \boxed{6} = \boxed{6}$$

3-3 Addition with 0

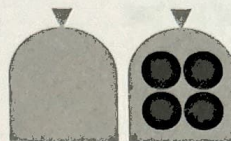
35

3 (a)



$$\boxed{9} + \boxed{0} = \boxed{9}$$

(b)



$$\boxed{0} + \boxed{4} = \boxed{4}$$

(c)



$$\boxed{7} + \boxed{0} = \boxed{7}$$

4 (a) 0 added to 2 is 2.

$$2 + \boxed{0} = \boxed{2}$$

(b) 10 and 0 make 10.

$$10 + \boxed{0} = \boxed{10}$$

(c) 5 more than 0 is 5.

$$0 + \boxed{5} = \boxed{5}$$

36

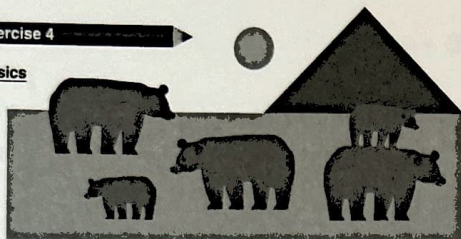
3-3 Addition with 0



Exercise 4

Basics

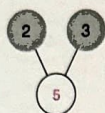
1



There are 2 baby bears and 3 big bears.  
How many bears are there altogether?

$$2 + 3 = 5$$

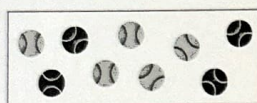
$$3 + 2 = 5$$



Practice

2 Write 2 different equations for each.

(a)



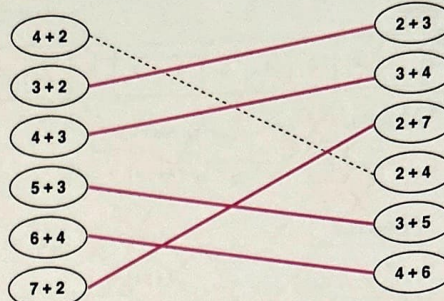
$$\begin{aligned} 4 + 5 &= 9 \\ 5 + 4 &= 9 \end{aligned}$$

(b)

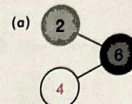


$$\begin{aligned} 6 + 4 &= 10 \\ 4 + 6 &= 10 \end{aligned}$$

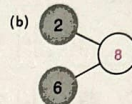
3 Match.



4 Complete the number bonds.  
Write 2 different equations for each.

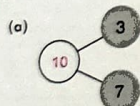


$$\begin{aligned} 2 + 4 &= 6 \\ 4 + 2 &= 6 \end{aligned}$$

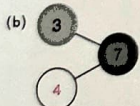


$$\begin{aligned} 6 + 2 &= 8 \\ 2 + 6 &= 8 \end{aligned}$$

5 Complete the number bonds.  
Write 2 different equations for each.



$$\begin{aligned} 3 + 7 &= 10 \\ 7 + 3 &= 10 \end{aligned}$$



$$\begin{aligned} 3 + 4 &= 7 \\ 4 + 3 &= 7 \end{aligned}$$

6 Use the numbers and signs to write 2 correct equations.

(a)  $6, 2, =, 4, +$   $4 + 2 = 6$   
 $2 + 4 = 6$

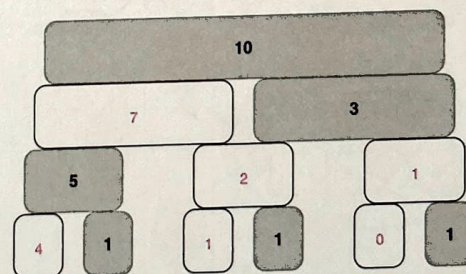
(b)  $=, 7, +, 7, 0$   $7 + 0 = 7$   
 $0 + 7 = 7$

(c)  $+, 4, 9, 5, =$   $4 + 5 = 9$   
 $5 + 4 = 9$

Note: Writing the total first is also valid, e.g.  $6 = 4 + 2$ .

Challenge

7 Each brick makes a number bond with the bricks it is resting on.  
Write the missing numbers.



$$\begin{aligned} 10 &= 7 + 3 \\ 7 &= 5 + 2 \\ 3 &= 2 + 1 \\ 5 &= 4 + 1 \\ 2 &= 1 + 1 \\ 1 &= 0 + 1 \end{aligned}$$



Exercise 5

Basics



(a) Add 0 to 7.

$$7 + 0 = \boxed{7}$$

(b) Add 1 to 7.

$$7 + 1 = \boxed{8}$$

(c) Add 2 to 7.

$$7 + 2 = \boxed{9}$$

(d) Add 3 to 7.

$$7 + 3 = \boxed{10}$$

2 (a) 2 more than 6 is 8.

$$6 + 2 = \boxed{8}$$

(b) 6 more than 2 is 8.

$$2 + 6 = \boxed{8}$$

(c)  $6 + 2 = 2 + \boxed{6}$

Practice

3 (a) 3 more than 5 is 8.

$$5 + \boxed{3} = \boxed{8}$$

(b) 8 more than 1 is 9.

$$1 + \boxed{8} = \boxed{9}$$

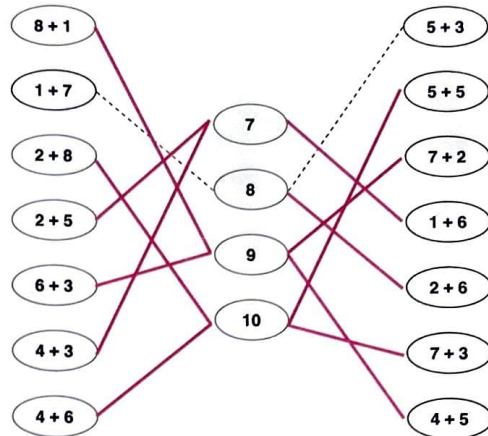
(c) 2 added to 7 is 9.

$$7 + \boxed{2} = \boxed{9}$$

3-5: Addition by Counting On

41

4 Match.



5 (a)  $\boxed{7} = 4 + 3$

(b)  $6 = \boxed{5} + 1$

(c)  $7 + 3 = \boxed{10}$

(d)  $\boxed{7} + 2 = 9$

(e)  $10 = 8 + \boxed{2}$

(f)  $9 + \boxed{1} = 10$

42

3-5: Addition by Counting On

Exercise 6 • pages 43 – 44

Exercise 6

Basics



Sofia has 5 toy cars.

She buys 2 more.

How many toy cars does she have now?

$$\boxed{5} + \boxed{2} = \boxed{7}$$

She has 7 toy cars now.

Practice



7 children had a slice of cheese pizza for lunch.

3 children had a slice of green pepper pizza for lunch.

How many slices of pizza were eaten altogether?

$$\boxed{7} + \boxed{3} = \boxed{10}$$

There were 10 slices of pizza eaten altogether.

3-6: Make Addition Stories

43

3 There are 6 and 3 .

How many fish are there in all?



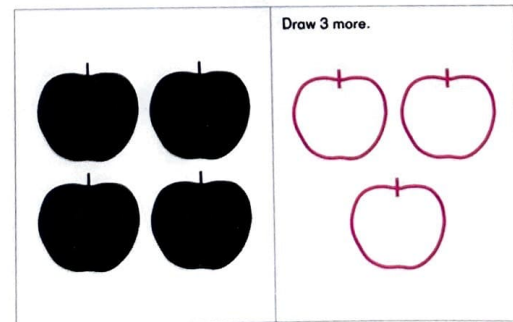
$$\boxed{6} + \boxed{3} = \boxed{9}$$

There are 9 fish in all.

4 Dion had 4 apples.

He got 3 more.

How many apples does he have altogether?



$$\boxed{4} + \boxed{3} = \boxed{7}$$

He has 7 apples altogether.

44

3-6: Make Addition Stories



Exercise 7

Basics

1

1+1 2	1+2 3	1+3 4	1+4 5	1+5 6	1+6 7	1+7 8	1+8 9	1+9 10
2+1 3	2+2 4	2+3 5	2+4 6	2+5 7	2+6 8	2+7 9	2+8 10	
3+1 4	3+2 5	3+3 6	3+4 7	3+5 8	3+6 9	3+7 10		
4+1 5	4+2 6	4+3 7	4+4 8	4+5 9	4+6 10			
5+1 6	5+2 7	5+3 8	5+4 9	5+5 10				
6+1 7	6+2 8	6+3 9	6+4 10					
7+1 8	7+2 9	7+3 10						
8+1 9	8+2 10							
9+1 10								

1

 + 4 = 5

2

 + 4 = 6

3

 + 4 = 7

4

 + 4 = 8

5

 + 4 = 9

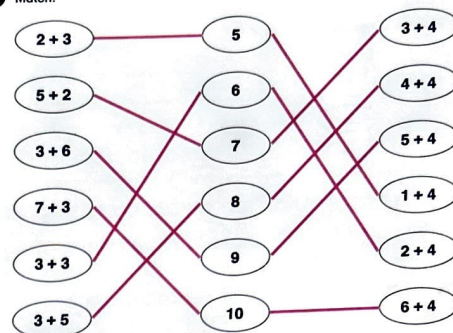
Note: Students may see the pattern that if one part stays the same, the other part increases by the same amount as the whole.

3-7 Addition Facts

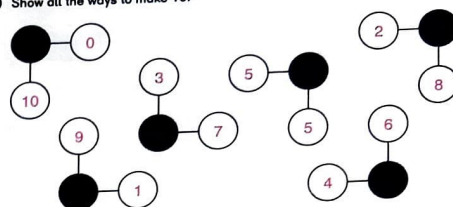
45

Practice

2 Match.



3 Show all the ways to make 10.



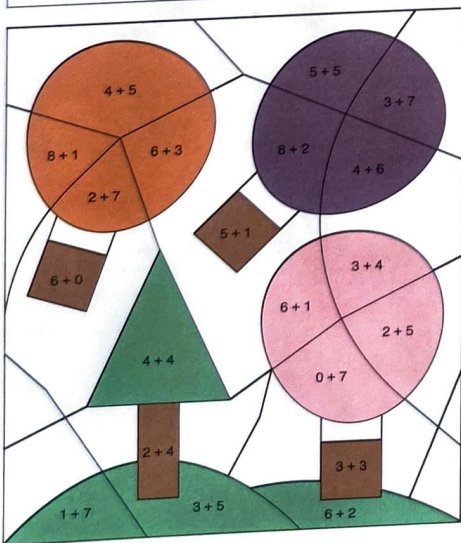
3-7 Addition Facts

46

4 Add.

Color the picture according to the Color Key.

Color Key					
10: Purple	9: Orange	8: Green	7: Pink	6: Brown	



3-7 Addition Facts

47

5 Color the balloons in each row that match the big number.

6	4+1	4+3	3+3	3+2	2+5	0+6
8	4+3	5+3	1+8	4+4	7+2	2+5
10	2+8	4+5	4+6	7+1	7+3	0+9
9	2+6	6+3	3+3	4+5	1+7	2+7
7	5+2	4+5	6+1	4+2	7+0	2+6

6 Use the numbers below to make 4 different equations.

7	3	10	4
---	---	----	---

7	+	3	=	10
---	---	---	---	----

4	+	3	=	7
---	---	---	---	---

3	+	7	=	10
---	---	---	---	----

3	+	4	=	7
---	---	---	---	---

3-7 Addition Facts

48



Exercise 8

Check

1 Circle the greatest one in each row.



(b) 9 6 8

(c) two ten six

(d)  $5 + 4$   $7 + 3$   $2 + 6$

2 Circle the least one in each row.



(b) 2 5 7

(c) three eight seven

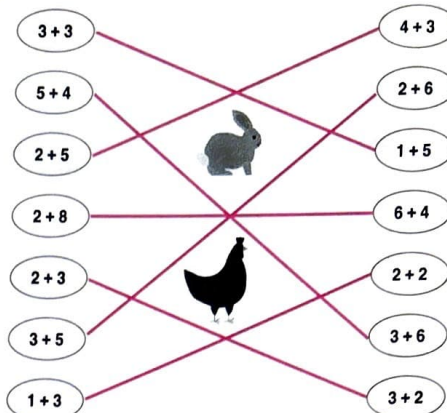
(d)  $2 + 7$   $3 + 4$   $5 + 3$

(e)  $4 + 6$   $4 + 2$   $2 + 8$

3-8 Practice

49

3 Put the animals in pens by drawing lines to match.



4 Write a complete equation for each.

(a) 1 more than 0 is 1.

$$\boxed{0} + \boxed{1} = \boxed{1}$$

(b) 4 and 6 make 10.

$$\boxed{4} + \boxed{6} = \boxed{10}$$

(c) 5 and 4 make 9.

$$\boxed{5} + \boxed{4} = \boxed{9}$$

50

3-8 Practice

5



There are 3 cookies in one jar.  
There are 5 cookies in the other jar.  
How many cookies are there in all?

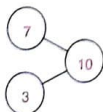
$$\boxed{3} + \boxed{5} = \boxed{8}$$

There are 8 cookies in all.

6 There are 7 dogs playing.  
3 more dogs come.  
How many dogs are there in all?

$$\boxed{7} + \boxed{3} = \boxed{10}$$

There are 10 dogs in all.



7 Use the numbers and signs to write a correct equation for each.

(a) 4, =, 8, +, 4  $4 + 4 = 8$

(b) 2, +, 7, =, 5  $2 + 5 = 7$  or  $5 + 2 = 7$

3-8 Practice

51

8 (a)  $5 + \boxed{5} = 10$

(b)  $4 + \boxed{6} = 10$

(c)  $\boxed{8} + 2 = 10$

(d)  $\boxed{3} + 7 = 10$

Challenge

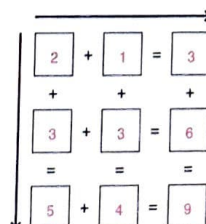
9 (a)  $6 + 1 = 5 + \boxed{2}$

(b)  $7 + \boxed{2} = 6 + 3$

(c)  $7 + 3 = \boxed{9} + 1$

(d)  $\boxed{5} + 2 = 4 + 3$

10 Fill in the boxes using 1, 2, 3, 3, 3, 4, 5, 6, 9.  
Add across and down.



Hint: If students need help, suggest they start by trying the 9 in the lower right box and think of two ways to make 9 with the given numbers.

Answers may vary.

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3-8 Practice

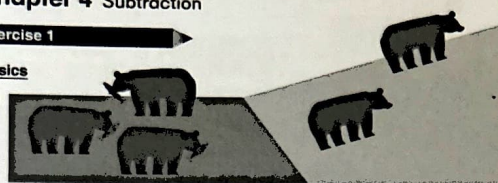


# Chapter 4 Subtraction

## Exercise 1

### Basics

1



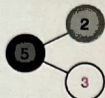
5 bears were eating.

2 bears walk away.

3 bears are still eating.

five minus two equals

$$\begin{array}{r} 5 \\ - 2 \\ \hline \end{array} = \boxed{3}$$



### Practice

2



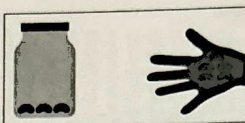
Alex has 10 slices of watermelon.

He eats 3 slices.

There are 7 slices of watermelon left.

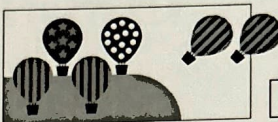
$$\begin{array}{r} 10 \\ - 3 \\ \hline \end{array} = \boxed{7}$$

3 (a)



$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array} = \boxed{3}$$

(b)



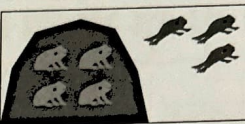
$$\begin{array}{r} 6 \\ - 2 \\ \hline \end{array} = \boxed{4}$$

(c)



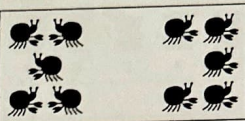
$$\begin{array}{r} 9 \\ - 4 \\ \hline \end{array} = \boxed{5}$$

(d)



$$\begin{array}{r} 7 \\ - 3 \\ \hline \end{array} = \boxed{4}$$

(e)



$$\begin{array}{r} 10 \\ - 5 \\ \hline \end{array} = \boxed{5}$$

## Exercise 2 • pages 55 – 56

### Exercise 2

#### Basics

1

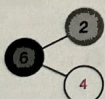


6 dogs are outside.

2 dogs are running.

4 dogs are sitting.

$$6 - 2 = \boxed{4}$$



#### Practice

2



There are 9 balls.

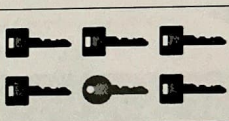
3 of them are footballs.

The rest are basketballs.

There are 6 basketballs.

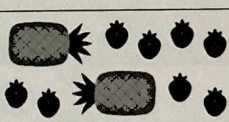
$$\begin{array}{r} 9 \\ - 3 \\ \hline \end{array} = \boxed{6}$$

3 (a)



$$\begin{array}{r} 6 \\ - 5 (1) \\ \hline \end{array} = \boxed{1 (5)}$$

(b)



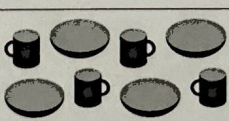
$$\begin{array}{r} 10 \\ - 8 (2) \\ \hline \end{array} = \boxed{2 (8)}$$

(c)



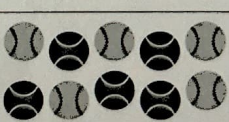
$$\begin{array}{r} 9 \\ - 6 (3) \\ \hline \end{array} = \boxed{3 (6)}$$

(d)



$$\begin{array}{r} 8 \\ - 4 \\ \hline \end{array} = \boxed{4}$$

(e)



$$\begin{array}{r} 10 \\ - 5 \\ \hline \end{array} = \boxed{5}$$



# Exercise 3 • pages 57 – 58

## Exercise 3

### Basics



(a) 1 less than 10.

$$10 - 1 = \boxed{9}$$

(b) Subtract 1 from 6.

$$6 - 1 = \boxed{5}$$

(c) 2 less than 10.

$$10 - 2 = \boxed{8}$$

(d) Subtract 2 from 6.

$$6 - 2 = \boxed{4}$$

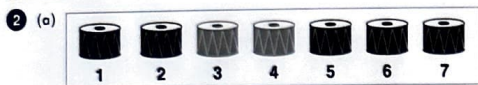
(e) Subtract 3 from 10.

$$10 - 3 = \boxed{7}$$

(f) 3 less than 6.

$$6 - 3 = \boxed{3}$$

### Practice



$$7 - 2 = \boxed{5}$$



$$8 - 3 = \boxed{5}$$

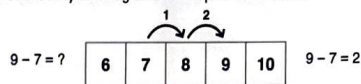
4-3 Subtraction by Counting Back

57

- 3 (a)  $\boxed{7} \xrightarrow{-1} \boxed{6}$  (b)  $\boxed{9} \xrightarrow{-1} \boxed{8}$   
 (c)  $\boxed{8} \xrightarrow{-2} \boxed{6}$  (d)  $\boxed{10} \xrightarrow{-2} \boxed{8}$   
 (e)  $\boxed{9} \xrightarrow{-2} \boxed{7}$  (f)  $\boxed{7} \xrightarrow{-3} \boxed{4}$   
 (g)  $\boxed{5} \xrightarrow{-3} \boxed{2}$  (h)  $\boxed{6} \xrightarrow{-2} \boxed{4}$
- 4 (a)  $10 - 1 = \boxed{9}$  (b)  $\boxed{10} - 2 = 8$   
 (c)  $\boxed{7} = 10 - 3$  (d)  $9 - \boxed{2} = 7$   
 (e)  $7 - \boxed{3} = 4$  (f)  $\boxed{8} - 2 = 6$

### Challenge

5 Subtract by counting on from the part to the whole.



- (a)  $10 - 9 = \boxed{1}$  (b)  $6 - 4 = \boxed{2}$   
 (c)  $7 - 5 = \boxed{2}$  (d)  $8 - 5 = \boxed{3}$

58

4-3 Subtraction by Counting Back

# Exercise 4 • pages 59 – 60

## Exercise 4

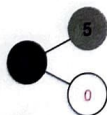
### Basics



5 owls were sleeping.  
 Then 5 owls woke up.  
 How many owls are still sleeping?

$$5 - 5 = \boxed{0}$$

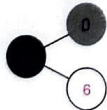
0 owls are still sleeping.



Mei has 6 stuffed bears.  
 She gives 0 of them away.  
 How many bears are left?

$$\boxed{6} - \boxed{0} = \boxed{6}$$

6 bears are left.



4-4 Subtraction with 0

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### Practice

3 Write a correct subtraction equation for each.

- (a) 5, 0, =, 5, -  $5 - 5 = 0$  or  $5 - 0 = 5$   
 (b) =, 7, -, 9, 2  $9 - 2 = 7$  or  $9 - 7 = 2$   
 (c) -, 5, 3, 8, =  $8 - 3 = 5$  or  $8 - 5 = 3$

- 4 (a) 9 less than 9 is 0.  $\boxed{9} - \boxed{9} = \boxed{0}$   
 (b) 0 less than 7 is 7.  $\boxed{7} - \boxed{0} = \boxed{7}$   
 (c) 3 subtracted from 3 is 0.  $\boxed{3} - \boxed{3} = \boxed{0}$

### Challenge

- 5 (a) 2 less than 6 - 2 is 2.  
 (b) 3 less than 10 - 3 is 4.  
 (c) 1 less than 7 - 6 is 0.  
 (d) 1 less than 9 - 1 is 7.  
 (e) 2 less than 8 - 6 is 0.

60

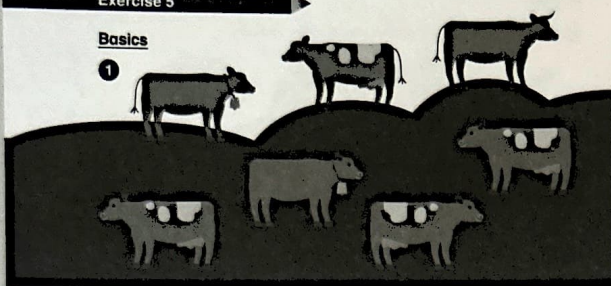
4-4 Subtraction with 0



## Exercise 5 • pages 61 – 62

**Exercise 5**

**Basics**

1 

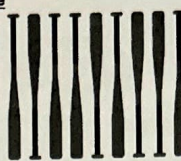
There are 7 cows.


(a) 4 cows have spots.  
The rest have no spots.  
How many cows do not have spots?  
3 cows have no spots.  $7 - 4 = 3$

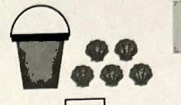
(b) 2 cows have a bell around their neck.  
How many cows have no bell?  
5 cows have no bell.  $7 - 2 = 5$

(c) 1 cow has horns.  
How many cows have no horns?  
6 cows have no horns.  $7 - 1 = 6$

**Practice**

2 (a)  I have 9 bats in a bin.  
I take out 6 bats.  
 $9 - 6 = 3$   
3 bats are still in the bin.



(b)  I have 8 sandwiches in a bag.  
I put 2 on a plate.  
 $8 - 2 = 6$   
6 sandwiches are still in the bag.

(c)  I have 10 shells in a bucket.  
I take out 5 shells.  
 $10 - 5 = 5$   
5 shells are still in the bucket.

## Exercise 6 • pages 63 – 64

**Exercise 6**

**Basics**

1  

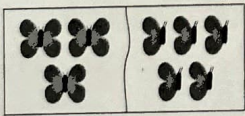
There are 10 apples.

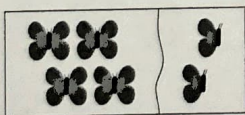
4 apples fell off the tree.  
How many apples are left on the tree?  
 $10 - 4 = 6$   
6 apples are on the tree.

6 apples are still on the tree.  
How many apples fell off the tree?  
 $10 - 6 = 4$   
4 apples fell off the tree.

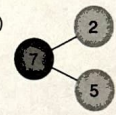
**Practice**

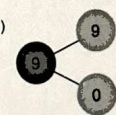
Write 2 different equations for each.

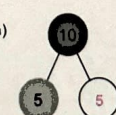
2 (a)   $8 - 5 = 3$   
 $8 - 3 = 5$


(b)   $6 - 2 = 4$   
 $6 - 4 = 2$

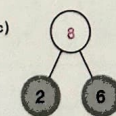
3 Write 2 different equations for each.

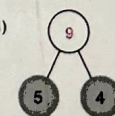
(a)   $7 - 2 = 5$   
 $7 - 5 = 2$

(b)   $9 - 0 = 9$   
 $9 - 9 = 0$

4 (a)   $10 - 5 = 5$

(b)   $6 - 2 = 4$

(c)   $8 - 6 = 2$

(d)   $9 - 4 = 5$

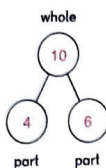


Exercise 7

Basics



- (a) There are 10 cars.  
6 are station wagons.  
4 are vans.



- (b) Write an equation for finding the total number of cars.

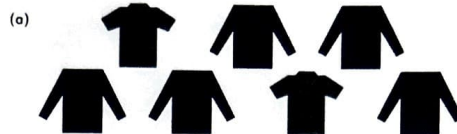
$$\boxed{6} + \boxed{4} = 10 \quad \text{Or, } 4 + 6$$

- (c) Write an equation for finding the number of station wagons.

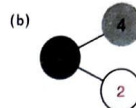
$$10 - \boxed{4} = \boxed{6}$$

Practice

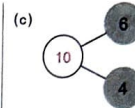
- 2 Write 2 addition and 2 subtraction equations for each.



$$\begin{array}{l} \boxed{5} + \boxed{2} = 7 \\ \boxed{7} - \boxed{5} = 2 \\ \boxed{2} + \boxed{5} = 7 \\ \boxed{7} - \boxed{2} = 5 \end{array}$$



$$\begin{array}{l} \boxed{2} + \boxed{4} = 6 \\ \boxed{4} + \boxed{2} = 6 \\ \boxed{6} - \boxed{4} = 2 \\ \boxed{6} - \boxed{2} = 4 \end{array}$$



$$\begin{array}{l} \boxed{6} + \boxed{4} = 10 \\ \boxed{4} + \boxed{6} = 10 \\ \boxed{10} - \boxed{6} = 4 \\ \boxed{10} - \boxed{4} = 6 \end{array}$$

- 3 Write 2 addition and 2 subtraction equations for each.

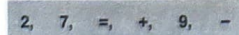


$$\begin{array}{l} \boxed{6} + \boxed{3} = 9 \\ \boxed{9} - \boxed{3} = 6 \\ \boxed{3} + \boxed{6} = 9 \\ \boxed{9} - \boxed{6} = 3 \end{array}$$



$$\begin{array}{l} \boxed{3} + \boxed{5} = 8 \\ \boxed{8} - \boxed{3} = 5 \\ \boxed{5} + \boxed{3} = 8 \\ \boxed{8} - \boxed{5} = 3 \end{array}$$

- 4 Write 4 different equations using these numbers and signs.



$$\begin{array}{l} 2 + 7 = 9 \\ 7 + 2 = 9 \\ 9 - 7 = 2 \\ 9 - 2 = 7 \end{array}$$



- (a) How many bananas are there? (b) How many fruits are there in all?

$$\boxed{4} + \boxed{4} = 8$$

There are 4 bananas.

$$\boxed{4} + \boxed{4} = 8$$

There are 8 fruits in all.



- (a) How many rabbits are there in all? (b) How many rabbits are running?

$$\boxed{6} + \boxed{3} = 9$$

There are 9 rabbits in all.

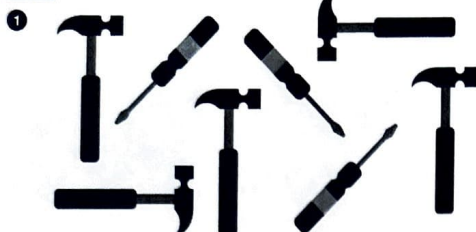
$$\boxed{9} - \boxed{6} = 3$$

There are 3 rabbits running.



Exercise 8

Basics



- (a) There are 8 tools.  
3 are screwdrivers.  
The rest are hammers.  
How many hammers are there?

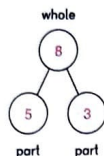
$$\boxed{8} - \boxed{3} = \boxed{5}$$

There are 5 hammers.

- (b) There are 3 screwdrivers.  
There are 5 hammers.  
How many tools are there in all?

$$\boxed{3} + \boxed{5} = \boxed{8}$$

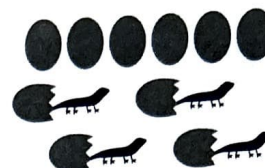
There are 8 tools in all.



- 2 How many lizards hatched?

$$10 - \boxed{6} = \boxed{4}$$

4 lizards hatched.



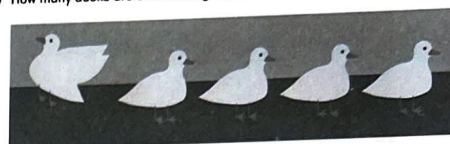
- 3 How many nuts are there altogether?



$$6 + \boxed{2} = \boxed{8}$$

There are 8 nuts altogether.

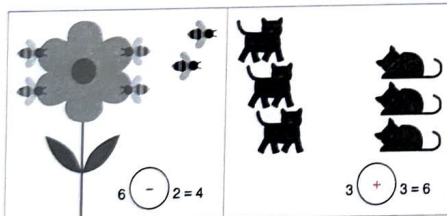
- 4 How many ducks are still on the ground?



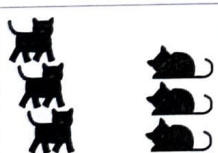
$$5 - \boxed{1} = \boxed{4}$$

4 ducks are still on the ground.

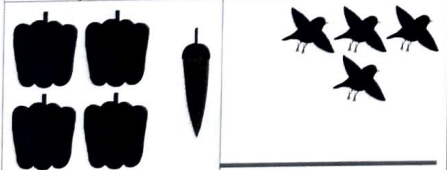
- 5 Write + or - in each  $\bigcirc$ .



$$6 \bigcirc 2 = 4$$



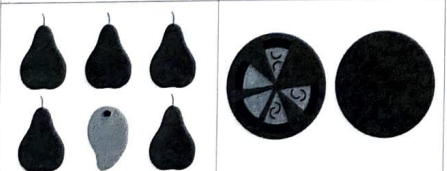
$$3 \bigcirc 3 = 6$$



$$4 \bigcirc 1 = 5$$



$$4 \bigcirc 4 = 0$$



$$5 \bigcirc 1 = 6$$



$$5 \bigcirc 5 = 0$$

- 6 Write + or - in each  $\bigcirc$ .

$$8 \bigcirc 6 = 2$$

$$10 \bigcirc 2 = 8$$

$$7 \bigcirc 2 = 9$$

$$7 \bigcirc 6 = 1$$

$$5 \bigcirc 5 = 0$$

$$5 \bigcirc 4 = 9$$

$$9 \bigcirc 1 = 10$$

$$8 \bigcirc 2 = 6$$

$$5 \bigcirc 4 = 9$$

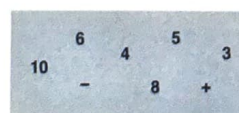
$$3 \bigcirc 2 = 1$$

$$8 \bigcirc 2 = 10$$

$$7 \bigcirc 0 = 7$$

Challenge

- 7 Use all of the numbers and signs to make 2 equations.



$$\boxed{10} - \boxed{6} = \boxed{4}$$

$$\boxed{3} + \boxed{5} = \boxed{8}$$

Answers may vary, check that equations are correct.



## Basics

$$9 - \boxed{8} = 1$$

$$9 - 7 = 2$$

$$9 - 6 = 3$$

$$9 - 5 = 4$$

$$9 - 4 = 5$$





































[illegible]

#### 4-9 Subtraction Facts

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### Practice

**2** Color the hearts in each row that match the big number.

5	 5-5	 3-2	 7-2	 10-5	 7-1	 9-5
4	 10-6	 9-3	 6-4	 5-1	 10-4	 6-2
2	 10-7	 9-7	 4-1	 8-2	 6-4	 1-1
3	 9-6	 5-3	 10-7	 8-5	 2-1	 7-4
1	 8-6	 9-8	 5-2	 7-5	 4-3	 6-1
6	 9-3	 4-2	 6-0	 6-2	 5-1	 7-1

3 (a)  $8 - 4 =$  4

(b)  $7 - 4 = \boxed{3}$

(c)  $9 - \boxed{6} = 3$

(d)  $6 - \boxed{4} = 2$

(e)  $\boxed{10} - 2 = 8$

(f)  $8 - \boxed{8} = 0$

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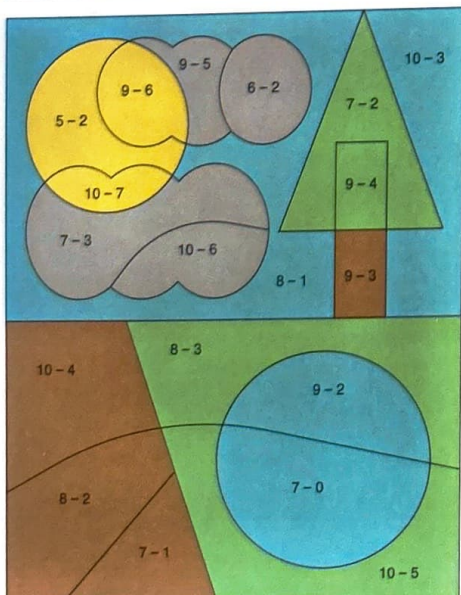
#### 4-9 Subtraction Facts

**4 Subtract.**

Color the picture according to the Color Key.

**Color Key**

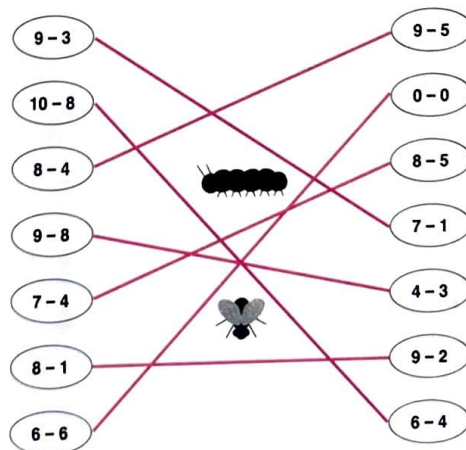
7: Blue 6: Brown 5: Green 4: Gray 3: Yellow



#### 4-9 Subtraction Facts

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**5** Catch the bugs in containers by drawing lines to match.



**6** Find the pattern and write the missing numbers.

9	7	5	6	8	7	10
3	2	1	3	6	7	6
6	5	4	3	2	0	4

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#### 4-9 Subtraction Facts



Exercise 10

Check

1 Circle the greatest one in each row.

(a)  eight 7

(b) 8 - 2 9 - 4 four

2 Circle the 2 that are the same in each row.

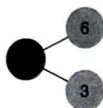
(a) nine  

(b) 7 - 5 8 - 4 9 - 7

(c) three 6 - 6 zero

3 Write 2 addition and 2 subtraction equations for the number bond.

3	+	6	=	9
6	+	3	=	9
9	-	3	=	6
9	-	6	=	3



4 There are 6 toys in a basket.  
4 toys are outside of the basket.  
How many toys are there altogether?

$$6 + 4 = 10$$

There are 10 toys altogether.



5 There are 10 golf balls altogether.  
2 golf balls are outside the bucket.  
How many golf balls are in the bucket?

$$10 - 2 = 8$$

There are 8 golf balls in the bucket.



6 There are 2 pineapples outside the bag.  
There are 8 pineapples in all.  
How many pineapples are in the bag?

$$8 - 2 = 6$$

There are 6 pineapples in the bag.





Exercise 11

Check

1 Circle the greatest one in each row.

- (a)  $7 + 1$  five  $7 - 1$
- (b)  $5 + 2$   $9 - 2$   $4 + 4$
- (c)  $2 + 3$   $9 - 3$   $8 - 3$
- (d)  $9 + 0$   $8 - 2$   $5 + 5$

2 What number is...

2 more		2 less	
$6 + 2$	10	$3 + 4$	5
$5 - 4$	3	$5 + 5$	8
$7 - 0$	9	$7 - 5$	0

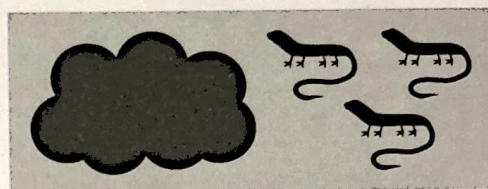
3 Write the missing numbers.

4	3	2	1	0	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

4 Write + or - in  $\bigcirc$  and a number in  $\square$  to make the equations true.

$$\begin{array}{ll} 5 \bigcirc 4 = 9 & 5 \bigcirc 2 = 3 \\ 7 \bigcirc 4 = 3 & 7 \bigcirc 3 = 10 \\ 9 \bigcirc 7 = 2 & 2 \bigcirc 7 = 9 \\ 8 \bigcirc 4 = 4 & 6 \bigcirc 2 = 8 \end{array}$$

5 There are 4 lizards in the bush.  
There are 3 lizards not in the bush.  
How many lizards are there in all?



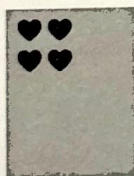
$$4 \bigcirc 3 = 7$$

There are 7 lizards in all.

6 Sofia wants to draw 9 hearts.  
She has drawn 4 hearts.  
How many more hearts does she need to draw?

$$9 \bigcirc 4 = 5$$

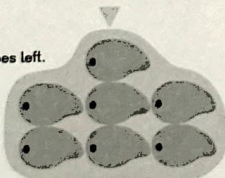
She needs to draw 5 more hearts.



7 Dion has 10 mangoes.  
After he gives some away, he has 7 mangoes left.  
How many mangoes did he give away?

$$10 \bigcirc 7 = 3$$

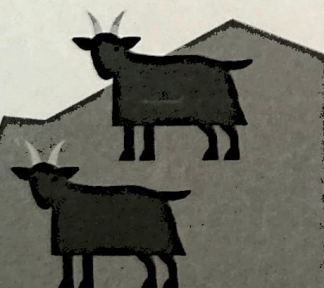
He gave 3 mangoes away.



8 There were 8 goats.  
Some ran away.  
2 goats are left.  
How many goats ran away?

$$8 \bigcirc 2 = 6$$

6 goats ran away.



Challenge

9 (a) 2 more than  $10 - 3$  is 9.

(b) 4 is between  $8 - 5$  and  $7 - 2$ .

(c) 2 less than  $9 - 7$  is 0.

10 (a)  $9 - 2 = 3 + \square$

(b)  $2 + 4 = 10 - \square$

(c)  $8 - \square = 1 + 3$

(d)  $\square + 6 = 10 - 3$

11 Fill in the boxes using 1, 1, 2, 2, 3, 5, 6, 7, 9.  
Subtract across and down.

$$\begin{array}{rcc} \begin{array}{|c|} \hline 9 \\ \hline \end{array} & - & \begin{array}{|c|} \hline 7 \\ \hline \end{array} & = & \begin{array}{|c|} \hline 2 \\ \hline \end{array} \\ \hline \begin{array}{|c|} \hline 6 \\ \hline \end{array} & - & \begin{array}{|c|} \hline 5 \\ \hline \end{array} & = & \begin{array}{|c|} \hline 1 \\ \hline \end{array} \\ \hline \begin{array}{|c|} \hline 3 \\ \hline \end{array} & - & \begin{array}{|c|} \hline 2 \\ \hline \end{array} & = & \begin{array}{|c|} \hline 1 \\ \hline \end{array} \end{array}$$

Hint: Start with 9 in the top left box, and 1 in the lower right.

Or

$$\begin{array}{l} 9 - 6 = 3 \\ 7 - 5 = 2 \\ 2 - 1 = 1 \end{array}$$



# Chapter 5 Numbers to 20

## Exercise 1

### Basics

- 1 Circle groups of 10.  
Then write the missing numbers.

Which 10 a student circles may vary.

	10 and <input type="text" value="4"/> is 14. $10 + \text{ } = 14$
	10 and <input type="text" value="5"/> is <input type="text" value="15"/> $10 + \text{ } = \text{ }$
	10 and <input type="text" value="2"/> is <input type="text" value="12"/> $10 + \text{ } = \text{ }$
	<input type="text" value="18"/> is 10 and <input type="text" value="8"/> <input type="text" value="18"/> = 10 + <input type="text" value="8"/>

### Practice

2 (a) (b) (c)

- 3 Circle 10.  
Write how many in all.


## Exercise 2 • pages 85 – 86

### Exercise 2

#### Basics

1

$10 + 6 = \text{ } 16$	$6 + 10 = \text{ } 16$	
$16 - 6 = \text{ } 10$	$16 - 10 = \text{ } 6$	

#### Practice

2 (a)  $10 + 8 = \text{ } 18$  (b)  $11 - 1 = \text{ } 10$   
 (c)  $9 + 10 = \text{ } 19$  (d)  $17 - 10 = \text{ } 7$   
 (e)  $10 + \text{ } 4 = 14$  (f)  $\text{ } 10 + 3 = 13$   
 (g)  $\text{ } 15 - 5 = 10$  (h)  $12 - \text{ } 10 = 2$

- 3 Match.

11	thirteen
12	fifteen
13	eighteen
14	twenty
15	eleven
16	fourteen
17	seventeen
18	twelve
19	sixteen
20	nineteen

- 4 Write how many in words.

	fifteen
	twelve
	fourteen
	seventeen



Exercise 3

Basics

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

- (a) 1 more than 10 is 11.
- (b) 16 is 1 more than 15.
- (c) 19 is 2 more than 17.
- (d) 12 is 2 less than 14.
- (e) 9 is 3 less than 12.
- (f) 3 more than 17 is 20.

Practice

- 2 Complete the number patterns.

- (a) 

10	12	14	16	18	20
----	----	----	----	----	----
- (b) 

17	15	13	11	9	7
----	----	----	----	---	---
- (c) 

3	6	9	12	15	18
---	---	---	----	----	----

- 3 Find and circle the number words in the puzzle.  
The words go across or down.

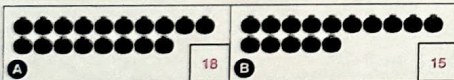
- |            |             |
|------------|-------------|
| • ten      | • sixteen   |
| • eleven   | • seventeen |
| • twelve   | • eighteen  |
| • thirteen | • nineteen  |
| • fourteen | • twenty    |
| • fifteen  |             |

n	i	e	f	f	t	e	n	s	s
n	h	e	o	i	w	i	i	i	e
e	i	r	u	f	f	g	n	x	l
v	r	e	r	t	w	h	e	f	e
i	t	l	t	e	e	t	f	e	v
n	e	e	e	e	n	e	e	e	e
s	e	v	e	n	t	e	e	n	x
e	n	e	n	h	y	n	n	r	t
e	e	n	f	w	e	l	v	e	v
t	n	n	i	s	h	f	e	n	e

Exercise 4

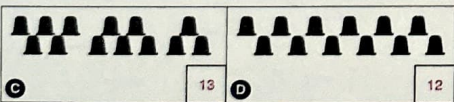
Basics

- 1 Write how many are in each set.



Set A has more tomatoes than Set B.

18 is greater than 15.



Set D has fewer thimbles than Set C.

12 is less than 13.

- 2 Circle the greatest number.

(a) 12 18 15

(b) 11 9 17 13

- 3 Circle the least number.

(a) 16 13 19

(b) 20 14 17 12

Practice

- 4 Write the numbers in the box in order, from least to greatest.

19	12	20	17	8
----	----	----	----	---

8	12	17	19	20
---	----	----	----	----

- 5 Write a number from the box to make each sentence true.

13	11
18	16
	15

- (a) 18 is the greatest number.
- (b) 11 is the least number.
- (c) 13 is greater than 11 and less than 15.
- (d) 16 is less than 18 and greater than 15.

Challenge

- 6 Circle the numbers in the box that are less than 17 and greater than 12.

20	<u>13</u>	<u>15</u>	17	<u>16</u>	18	12
----	-----------	-----------	----	-----------	----	----

- 7 Write the numbers from greatest to least.

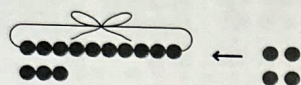
1 ten 4 ones	eleven	2 more than 13	1 less than 18
17	15	14	11



Exercise 5

Basics

- 1 Add 4 to 13.



$$13 + 4 = 17$$

- 2 (a)



$$4 + 5 = 9$$

$$14 + 5 = 19$$



- (b)



$$6 + 2 = 8$$

$$16 + 2 = 18$$



Practice

- 3 Add.

 $17 + 2 = 19$	 $12 + 7 = 19$
 $15 + 4 = 19$	 $14 + 2 = 16$
 $2 + 12 = 14$	 $12 + 5 = 17$
 $4 + 11 = 15$	 $3 + 14 = 17$

- 4 Complete the addition equation for each picture.

 $11 + 6 = 17$	 $12 + 3 = 15$
 $13 + 5 = 18$	 $15 + 3 = 18$
 $12 + 5 = 17$	 $14 + 2 = 16$
 $3 + 12 = 15$	 $4 + 14 = 18$

5 (a)  $13 + 2 = 15$

(b)  $3 + 11 = 14$

(c)  $5 + 14 = 19$

(d)  $18 = 15 + 3$

(e)  $13 + 5 = 18$

(f)  $2 + 17 = 19$

- 6



Mei walks dogs.  
Last week, she walked 12 dogs.  
This week, she walked 7 dogs.  
How many dogs did she walk in the 2 weeks?

$$12 + 7 = 19$$

She walked 19 dogs.



Exercise 6

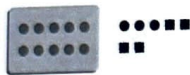
Basics

- 1 Subtract 5 from 16.



$$16 - 5 = 11$$

- 2 (a)

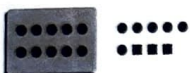


$$7 - 4 = 3$$



$$17 - 4 = 13$$

- (b)



$$9 - 3 = 6$$



$$19 - 3 = 16$$

5-6 Subtraction

95

Practice

- 3 Subtract.

 $15 - 3 = 12$	 $19 - 6 = 13$
 $17 - 4 = 13$	 $18 - 3 = 15$
 $12 - 1 = 11$	 $16 - 4 = 12$
 $18 - 2 = 16$	 $19 - 5 = 14$

96

5-6 Subtraction

- 4 Complete the subtraction equation for each picture.

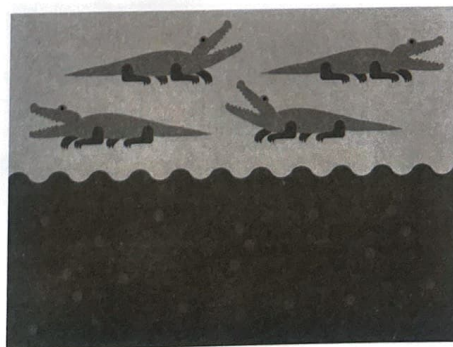
 $17 - 3 = 14$	 $14 - 2 = 12$
 $15 - 2 = 13$	 $16 - 5 = 11$
 $18 - 5 = 13$	 $16 - 2 = 14$
 $20 - 10 = 10$	 $19 - 3 = 16$

5-6 Subtraction

97

- 5 (a)  $18 - 4 = 14$  (b)  $19 - 7 = 12$   
 (c)  $15 = 19 - 4$  (d)  $16 - 5 = 11$   
 (e)  $19 - 6 = 13$  (f)  $15 - 2 = 13$

- 6 There are 16 alligators altogether.  
 4 alligators are on land.  
 How many alligators are in the water?



$$16 - 4 = 12$$

There are 12 alligators in the water.

98

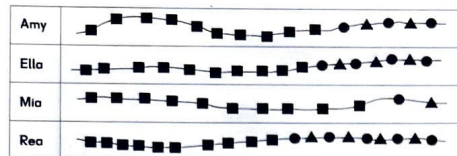
5-6 Subtraction



Exercise 7

Check

- 1 Amy, Ella, Mia, and Rea each have some beads.



- (a) Mia has the fewest beads.  
 (b) Rea has the most beads.  
 (c) Mia has fewer beads than Amy.  
 (d) Ella and Rea have more beads than Amy.  
 (e) Write the number of beads each person has from least to greatest.

12 15 17 19

- (f) Mia gets 4 more beads.

She now has 16 beads.

- (g) Rea loses 6 beads.

She now has 13 beads.

5-7 Practice

99

- 2 Write the number that is...

1 more	
eleven	12
nineteen	20

1 less	
fifteen	14
twelve	11

3 (a)  $10 + 7 =$  17

(b)  $16 - 6 =$  10

(c)  $12 + 7 =$  19

(d)  $16 - 5 =$  11

- 4 Write the numbers.

one more than eleven	12
two less than twenty	18

two more than thirteen	15
three less than seventeen	14

Challenge

- 5 Write a check ✓ if the statement is correct.

1 ten and 5 ones is less than 18 ones and more than 13 ones.	✓
4 added to 12 is greater than 2 subtracted from 18.	
$18 - 5$ is 2 more than $6 + 5$ .	✓
$8 + 5$ is 1 less than $15 - 3$ .	

100

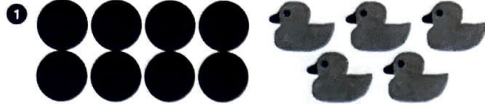
5-7 Practice



# Chapter 6 Addition to 20

## Exercise 1

### Basics



There are 8 balls.  
There are 5 ducks.  
How many toys are there in all?

$$\begin{array}{c} \text{8 balls} + \text{5 ducks} = \text{13 toys} \\ 8 + 5 = 13 \end{array}$$

There are 13 toys in all.

### Practice

2 Add 7 and 6.

$$\begin{array}{c} \text{7 dots} + \text{6 dots} = \text{13 dots} \\ 7 + 6 = 13 \end{array}$$

6-1 Add by Making 10 — Part 1

101

3 Add.

$9 + 2 = 11$	$7 + 5 = 12$
$8 + 6 = 14$	$9 + 4 = 13$
$7 + 4 = 11$	$9 + 7 = 16$
$6 + 5 = 11$	$8 + 8 = 16$

102

6-1 Add by Making 10 — Part 1

4 Add.

$9 + 3 = 12$	$8 + 4 = 12$
$8 + 3 = 11$	$9 + 6 = 15$
$7 + 5 = 12$	$9 + 4 = 13$
$6 + 6 = 12$	$7 + 7 = 14$

6-1 Add by Making 10 — Part 1

103

5 (a)  $9 + 6 = 15$

(b)  $8 + 3 = 11$

(c)  $7 + 5 = 12$

(d)  $8 + 4 = 12$

(e)  $9 + 2 = 11$

(f)  $9 + 5 = 14$

6 (a)  $7 + 6 = 13$

(b)  $8 + 5 = 13$

(c)  $9 + 9 = 18$

(d)  $5 + 7 = 12$

(e)  $9 + 5 = 14$

(f)  $7 + 7 = 14$

104

6-1 Add by Making 10 — Part 1











# Exercise 1 • pages 113 – 116

## Exercise 5

### Check


1 Color the greatest one in each row.

- (a) 1 ten 8 ones fourteen eleven
- (b) eighteen 4 ones 1 ten twenty
- (c)  $2 + 3$   $10 - 6$   $7 - 3$
- (d)  $12 + 5$   $7 + 9$   $8 + 8$
- (e)  $8 + 7$   $5 + 11$   $9 + 9$
- (f)  $17 - 4$   $11 + 8$   $15 - 3$
- (g)  $8 + 4$   $19 - 5$   $6 + 10$


6-5 Practice

113

2 Color the squares in each row that match the big number.



12	$9 + 3$	$11 + 2$	$9 + 6$	$4 + 7$	$6 + 6$	$7 + 5$	$8 + 4$
11	$5 + 6$	$2 + 9$	$6 + 6$	$8 + 3$	$7 + 4$	$9 + 4$	$6 + 5$
16	$9 + 2$	$8 + 8$	$4 + 8$	$5 + 11$	$9 + 9$	$7 + 6$	$9 + 7$
17	$13 + 4$	$7 + 10$	$16 + 3$	$8 + 9$	$7 + 6$	$6 + 11$	$15 + 2$
13	$7 + 6$	$5 + 7$	$8 + 8$	$9 + 4$	$5 + 9$	$11 + 2$	$3 + 8$
14	$12 + 2$	$7 + 9$	$7 + 7$	$9 + 5$	$8 + 4$	$6 + 8$	$5 + 6$
15	$9 + 6$	$11 + 4$	$8 + 7$	$9 + 5$	$4 + 7$	$3 + 12$	$6 + 9$

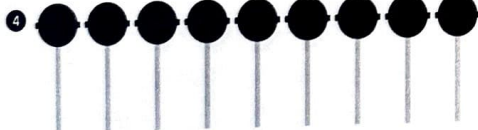


3 Find the pattern and write the missing numbers.

5	6	7	12	8	7	11
3	2	8	5	6	7	0
8	8	15	17	14	14	11

114

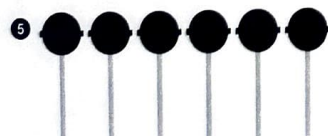
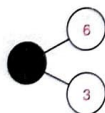
6-5 Practice



Arman had 9 lollipops at first.  
After giving some away, he had 6 lollipops left.  
How many lollipops did he give away?

$$\boxed{9} - \boxed{6} = \boxed{3}$$

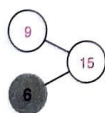
He gave away 3 lollipops.



After giving away 9 lollipops, Emily had 6 lollipops left.  
How many lollipops did she have at first?

$$\boxed{9} + \boxed{6} = \boxed{15}$$

She had 15 lollipops at first.



6-5 Practice

115

### Challenge

6 Write numbers so that each equation across and down is correct.

4	+	8	=	12
+		+		+
3	+	5	=	8
=		=		=
7	+	13	=	20

Note: Students can start by filling in the middle square or the top left square, then continuing with equations that have only one unknown at a time.

7 Each symbol stands for a different number.  
What is each number?

$$\star + \star = 16 \quad \star = \boxed{8}$$

$$\hexagon - \star = 10 \quad \hexagon = \boxed{18}$$

Hint: Ask students to think of cases where the two numbers being added are the same.

116

6-5 Practice

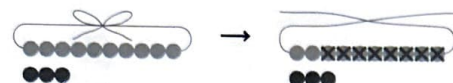


# Chapter 7 Subtraction Within 20

## Exercise 1

### Basics

- 1 Subtract 8 from 13.

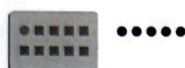


$$13 - 8 = \boxed{5}$$

- 2



$$10 - 9 = \boxed{1}$$



$$15 - 9 = \boxed{1} + 5$$

$$15 - 9 = \boxed{6}$$

- 3



$$10 - 8 = \boxed{2}$$



$$15 - 8 = \boxed{2} + 5$$

$$15 - 8 = \boxed{7}$$

7-1 Subtract from 10 — Part 1

117

### Practice

- 4 Subtract.

$12 - 8 = \boxed{4}$		$13 - 9 = \boxed{4}$	
$18 - 9 = \boxed{9}$		$14 - 8 = \boxed{6}$	
$17 - 9 = \boxed{8}$		$16 - 8 = \boxed{8}$	
$11 - 8 = \boxed{3}$		$17 - 8 = \boxed{9}$	

118

7-1 Subtract from 10 — Part 1

- 5 Write the missing numbers.

$14 - 8 = \boxed{2} + 4$		$16 - 9 = \boxed{1} + 6$	
$12 - 8 = \boxed{2} + 2$		$14 - 9 = \boxed{1} + 4$	

- 6 Subtract.

$13 - 9 = \boxed{4}$		$15 - 8 = \boxed{7}$	
$15 - 9 = \boxed{6}$		$17 - 8 = \boxed{9}$	

7-1 Subtract from 10 — Part 1

119

- 7 (a)  $12 - 8 = \boxed{2} + 2$



- (b)  $16 - 9 = \boxed{1} + 6$



- (c)  $12 - 9 = \boxed{1} + 2$



- (d)  $15 - 8 = \boxed{2} + 5$



- 8 (a)  $14 - 8 = \boxed{6}$



- (b)  $11 - 9 = \boxed{2}$



- (c)  $15 - 9 = \boxed{6}$



- (d)  $18 - 9 = \boxed{9}$



- 9 (a)  $17 - 8 = \boxed{9}$



- (b)  $16 - 8 = \boxed{8}$



- (c)  $11 - 8 = \boxed{3}$



- (d)  $14 - 9 = \boxed{5}$



120

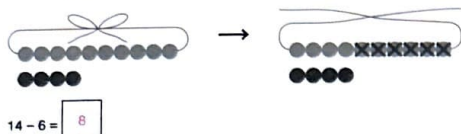
7-1 Subtract from 10 — Part 1



Exercise 2

Basics

- 1 Subtract 6 from 14.



- 2 (a)  $13 - 7 = \boxed{3} + 3$

$$13 - 7 = \boxed{6}$$

- (b)  $15 - 6 = \boxed{4} + 5$

$$15 - 6 = \boxed{9}$$

- (c)  $11 - 5 = \boxed{5} + 1$

$$11 - 5 = \boxed{6}$$

- (d)  $12 - 4 = \boxed{6} + 2$

$$12 - 4 = \boxed{8}$$

7-2 Subtract from 10 — Part 2

121

Practice

- 3 Subtract.

$14 - 5 = \boxed{9}$	$13 - 6 = \boxed{7}$
$12 - 7 = \boxed{5}$	$11 - 6 = \boxed{5}$
$16 - 7 = \boxed{9}$	$12 - 6 = \boxed{6}$
$11 - 2 = \boxed{9}$	$15 - 6 = \boxed{9}$

122

7-2 Subtract from 10 — Part 2

- 4 Write the missing numbers.

$13 - 4 = \boxed{6} + 3$	$12 - 5 = \boxed{5} + 2$
$11 - 4 = \boxed{6} + 1$	$15 - 7 = \boxed{3} + 5$

- 5 Subtract.

$11 - 3 = \boxed{8}$	$14 - 7 = \boxed{7}$
$13 - 7 = \boxed{6}$	$12 - 3 = \boxed{9}$

7-2 Subtract from 10 — Part 2

123

- 6 (a)  $13 - 6 = \boxed{4} + 3$



- (b)  $15 - 7 = \boxed{3} + 5$



- (c)  $11 - 4 = \boxed{6} + 1$



- (d)  $12 - 5 = \boxed{5} + 2$



- 7 (a)  $14 - 6 = \boxed{8}$



- (b)  $16 - 7 = \boxed{9}$



- (c)  $11 - 5 = \boxed{6}$



- (d)  $15 - 6 = \boxed{9}$



- 8 (a)  $12 - 7 = \boxed{5}$



- (b)  $13 - 4 = \boxed{9}$

- (c)  $11 - 6 = \boxed{5}$



- (d)  $14 - 7 = \boxed{7}$

124

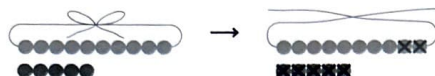
7-2 Subtract from 10 — Part 2



Exercise 3

Basics

- 1 Subtract 7 from 15.



$$15 - 7 = 8$$

2



$$12 - 2 = 10$$



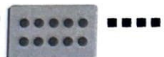
$$12 - 5 = 7$$



$$12 - 5 = 10 - 3$$

$$12 - 5 = 7$$

3



$$14 - 4 = 10$$



$$14 - 6 = 10 - 2$$

$$14 - 6 = 8$$

7.3 Subtract the Ones First

125

Practice

- 4 Subtract.



$$11 - 8 = 3$$



$$12 - 4 = 8$$



$$13 - 8 = 5$$



$$14 - 7 = 7$$



$$15 - 6 = 9$$



$$18 - 9 = 9$$



$$16 - 9 = 7$$



$$11 - 6 = 5$$

7.3 Subtract the Ones First

126

5 (a)  $15 - 8 = 10 - 3$

(b)  $13 - 5 = 10 - 2$

(c)  $11 - 2 = 10 - 1$

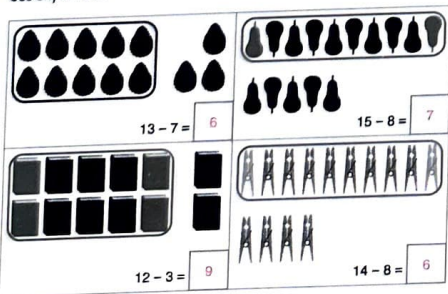
(d)  $12 - 9 = 10 - 7$

(e)  $16 - 9 = 10 - 3$

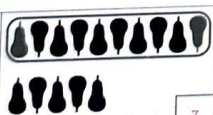
(f)  $13 - 4 = 10 - 1$

- 6 Subtract.

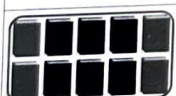
Use any method.



$$13 - 7 = 6$$



$$15 - 8 = 7$$



$$12 - 3 = 9$$



$$14 - 8 = 6$$

7.3 Subtract the Ones First

127

7 (a)  $11 - 9 = 2$

(b)  $13 - 6 = 7$

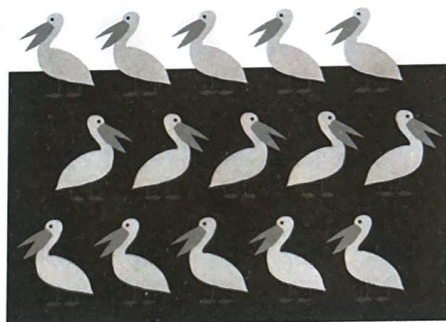
(c)  $12 - 6 = 6$

(d)  $11 - 7 = 4$

(e)  $16 - 8 = 8$

(f)  $14 - 9 = 5$

8



15 pelicans are on the beach.  
If 7 of them fly away,  
how many pelicans will be left on the beach?

$$15 - 7 = 8$$

8 pelicans will be left on the beach.

7.3 Subtract the Ones First

128



Exercise 4

Basics

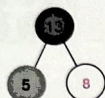
1



There are 13 balls.  
5 are footballs.  
The rest are baseballs.  
How many baseballs are there?

$$\boxed{13} - \boxed{5} = \boxed{8}$$

There are 8 baseballs.



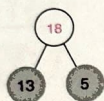
2



There are 13 baseballs and 5 footballs.  
How many balls are there in all?

$$\boxed{13} + \boxed{5} = \boxed{18}$$

There are 18 balls in all.



Practice

- 3 Grace found 9 shells.  
Julia gives her 5 more shells.  
How many shells does Grace have?

$$\boxed{9} + \boxed{5} = \boxed{14}$$

Grace has 14 shells.



- 4 Kiara needs 15 eggs.  
She has 8 eggs.  
How many more eggs does she need?

$$\boxed{15} - \boxed{8} = \boxed{7}$$

She needs 7 more eggs.



- 5 Hunter had 9 hats.  
He gave some away, and now has 5.  
How many hats did he give away?

$$\boxed{9} - \boxed{5} = \boxed{4}$$

He gave 4 hats away.





Exercise 5

Basics

1

11-2 9	11-3 8	11-4 7	11-5 6	11-6 5	11-7 4	11-8 3	11-9 2
12-3 9	12-4 8	12-5 7	12-6 6	12-7 5	12-8 4	12-9 3	
	13-4 9	13-5 8	13-6 7	13-7 6	13-8 5	13-9 4	
		14-5 9	14-6 8	14-7 7	14-8 6	14-9 5	
			15-6 9	15-7 8	15-8 7	15-9 6	
				16-7 9	16-8 8	16-9 7	
					17-8 9	17-9 8	
						18-9 9	

11-7=4  
11-8=3  
11-9=2

11-4=7  
12-4=8  
13-4=9

Note: Students can use the chart above to complete these.

- 2 (a)  $15-6=14-$   (b)  $15-6=13-$    
 (c)  $13-6=14-$   (d)  $13-6=15-$

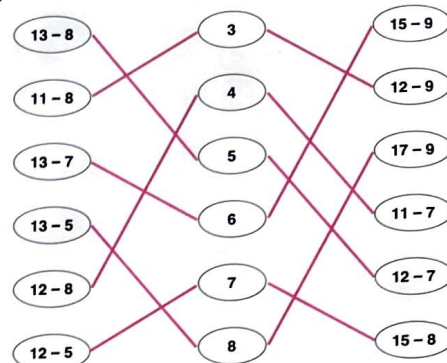
7-5 Subtraction Facts Within 20

131

Practice

- 3 (a)  $15-9=$   (b)  $16-7=$    
 $15-8=$    $15-7=$    
 $15-7=$    $14-7=$    
 $15-6=$    $13-7=$

4 Match.



132

7-5 Subtraction Facts Within 20

5 Color the squares in each row that match the big number.

7	18-9	19-2	14-7	11-4	16-9	13-6	12-5
4	13-5	11-6	13-9	16-2	11-8	11-9	12-7
8	17-8	17-5	12-4	16-8	11-3	14-6	15-7
2	11-6	19-4	13-8	14-2	18-3	12-4	11-9
9	12-3	16-7	13-4	15-6	11-2	16-6	14-5
5	11-6	19-4	19-7	13-9	14-9	11-5	12-7
6	12-6	19-3	16-4	17-9	11-5	14-8	15-9

6 Write + or - in each .

- (a)  $7$    $8=15$  (b)  $15$    $3=12$   
 (c)  $14$    $3=17$  (d)  $15$    $3=18$   
 (e)  $4$    $3=7$  (f)  $15$    $0=15$

7-5 Subtraction Facts Within 20

133

7 Write the answers.

Color all the boxes with the answer 8 or 12.

19-6	13+6	8+4	17-5	5+7	12-7	18-10	11+1
13	19	12	12	12	5	8	12
12-4	10-2	14-6	7+8	9+3	11+5	15-7	15-5
8	8	8	15	12	16	8	10
12+0	15-6	7+9	16-9	13-5	9+9	3+5	13-0
12	9	16	7	8	18	8	13
17-9	10+2	19-7	6+7	0+12	7+5	11-3	14+2
8	12	12	13	12	12	8	16
20-10	10+8	16-8	5+6	18-9	0+14	9+4	4+7
10	18	8	11	9	14	13	11

- 8 (a)  $17-$    $=9$  (b)  $11-$    $=2$   
 (c)  $14+$    $=17$  (d)   $-5=8$   
 (e)   $+7=15$  (f)  $9+$    $=18$

7-5 Subtraction Facts Within 20

134



Exercise 6

Check

Note: Students may also fill in  $=$  signs first in some cases, e.g.,  $14 = 8 + 6$  instead of  $14 - 8 = 6$ .

- 1 Make as many addition and subtraction equations as you can. 3 are done.

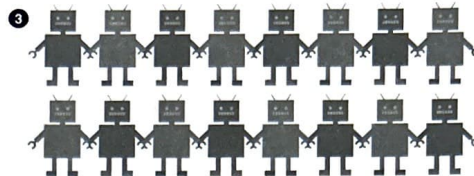
8	+	9	=	17	-	7	=	10		11
-		+		-				-		-
6	-	2	=	4		14	-	5	=	9
=		=		=		=		=		=
2	+	11	=	13		7	-	5	=	2
										+
3	+	8	=	11	+	6	=	17		2
+				-				-		=
11		17	-	5	=	12	-	8	=	4
=				=		=		=		=
14	-	8	=	6		5	+	9	=	14

- 2 Cross out any that are greater than 13.

~~6 + 8~~    9 + 2    15 - 6    ~~1 - 3~~    ~~1 - 4~~

7-6 Practice

135



Fernando has 16 robots.  
He loses 3 robots.  
How many robots does he have now?

$$16 - 3 = 13$$

He has 13 robots now.



Katherine has a box of 8 paint tubes.  
She got another box of 8 paint tubes.  
How many paint tubes does she have now?

$$8 + 8 = 16$$

She has 16 paint tubes now.

136

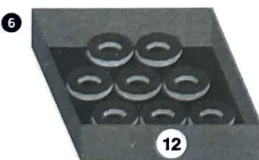
7-6 Practice



Daniel's bag of 8 bananas is full.  
He has 5 more bananas.  
How many bananas does he have in all?

$$8 + 5 = 13$$

He has 13 bananas.



Asimah's box of 12 donuts only has 8 donuts.  
How many donuts are missing?

$$12 - 8 = 4$$

4 donuts are missing.

7-6 Practice

137

Challenge

- 7 Andrei's box will hold 12 crayons.  
It has 9 crayons.  
He gets 5 more crayons.  
How many crayons will not fit in the box?

There are 2 extra crayons.

Hint: Students can act the problem out with counters.

- 8 Write + or - in each  $\bigcirc$ .

(a)  $9 \bigcirc 4 = 16$      $6 \bigcirc 3$

(b)  $14 \bigcirc 8 = 9$      $3 \bigcirc$

Hint: Students can act the problem out with ten-frames.

- 9 There are 15 dots on 2 ten-frame cards.  
How many dots are covered up?



- 10 Each symbol stands for a different number.  
What is each number?

$$\text{Hexagon} - \text{Star} = 4$$

$$\text{Star} = 3$$

Hint: Suggest that students try to find the value for the shapes in the second equation first.

$$\text{Hexagon} + \text{Hexagon} = 14$$

$$\text{Hexagon} = 7$$

138

7-6 Practice

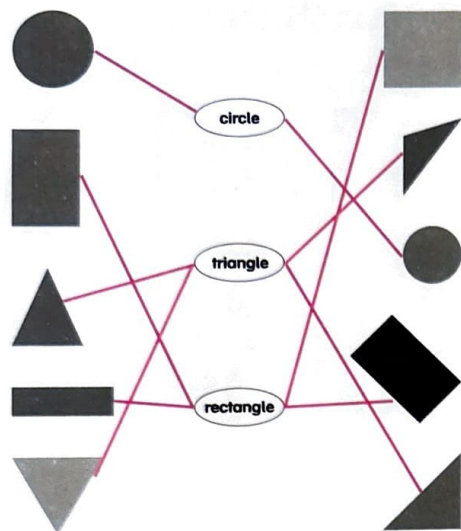


# Chapter 8 Shapes

## Exercise 1

### Basics

#### 1 Match.



B-1 Solid and Flat Shapes

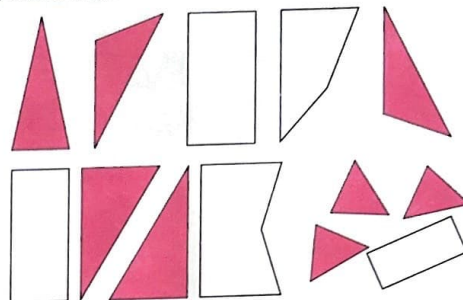
139

#### 2 Circle the rectangles that are squares.



### Practice

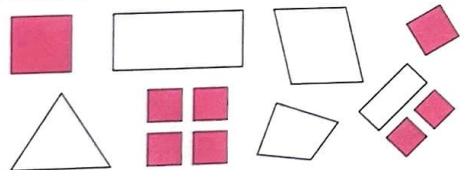
#### 3 Color the triangles.



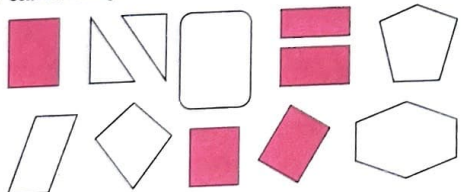
140

B-1 Solid and Flat Shapes

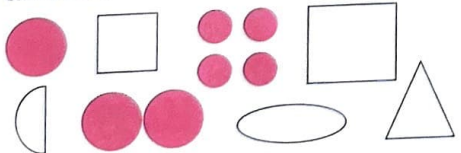
#### 4 Color the squares.



#### 5 Color the rectangles.



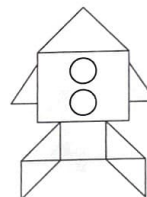
#### 6 Color the circles.



B-1 Solid and Flat Shapes

141

#### 7 Write the number of each kind of shape.



circles 2

triangles 7

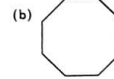
rectangles 2

#### 8 How many sides and corners does each figure have?



4 corners

4 sides



8 corners

8 sides



8 corners

8 sides



10 corners

10 sides

142

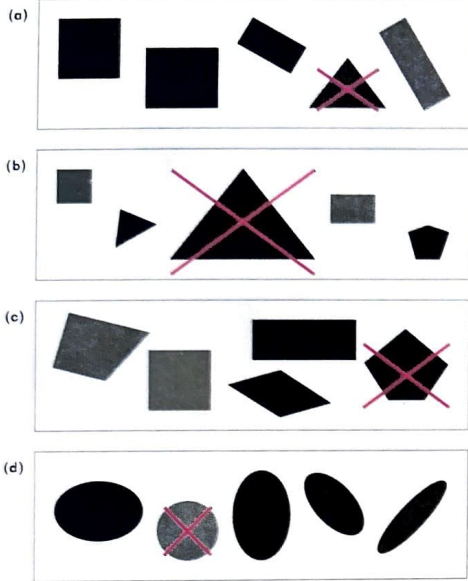
B-1 Solid and Flat Shapes



Exercise 2

Basics

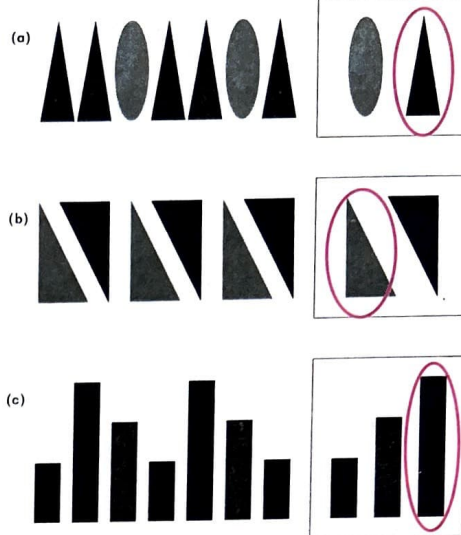
1 Cross out the shape that does not belong.



B-2 Grouping Shapes

143

2 Circle the shape that comes next in each pattern.

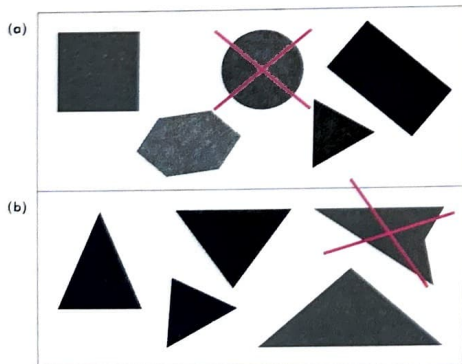


144

B-2 Grouping Shapes

Practice

3 What does not belong?  
Cross it out.



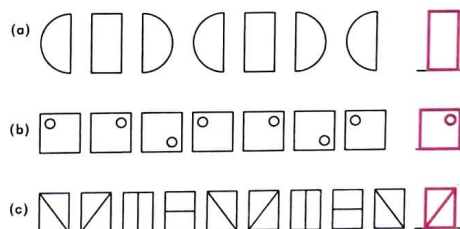
4 What comes next?  
Circle it.



B-2 Grouping Shapes

145

5 What comes next?  
Draw it.



Challenge

6 What comes next in the pattern?  
Draw it.



If students are struggling, encourage them to look first at the pattern of large shapes and then at the pattern of small shapes.

146

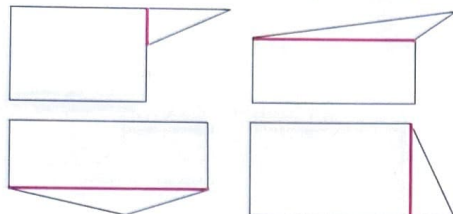
B-2 Grouping Shapes



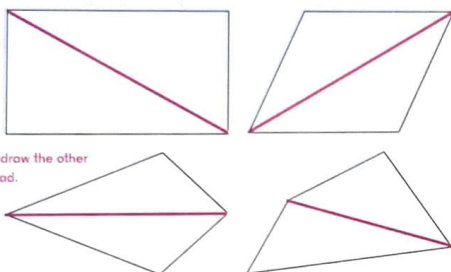
Exercise 3

Basics

- 1 Draw 1 line to cut each of these figures into a triangle and a rectangle.



- 2 Draw 1 line to cut each of these figures into two triangles.



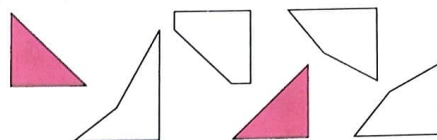
Students may draw the other diagonal instead.

8-3 Making Shapes

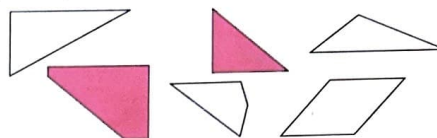
147

Practice

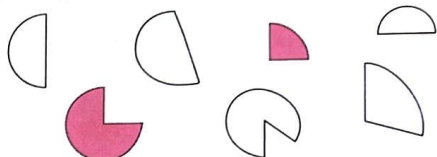
- 3 Color 2 figures that when put together will form a square.



- 4 Color 2 figures that when put together will form a rectangle.



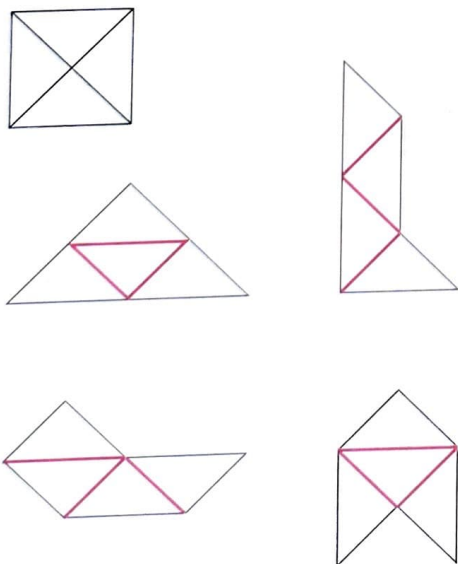
- 5 Color 2 figures that when put together will form a circle.



148

8-3 Making Shapes

- 6 Trace the square and cut it into 4 triangles. Use them to make each of the figures. Draw lines to show how you did it.

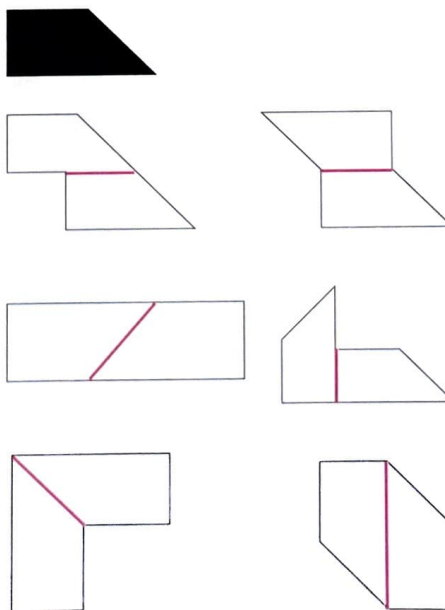


8-3 Making Shapes

149

Challenge

- 7 Draw 1 line to cut each figure into two shapes like this one.



150

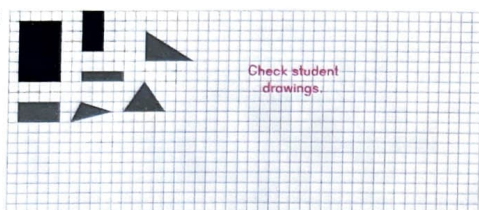
8-3 Making Shapes



Exercise 4

Check

1



(a) How many shapes are there in all?  $4 + 3 = 7$

(b) Draw and color in 5 more rectangles. How many rectangles are there now?  $4 + 5 = 9$

(c) Draw and color in 8 more triangles. How many triangles are there now?  $3 + 8 = 11$

(d) How many more shapes did you draw in all?  $5 + 8 = 13$

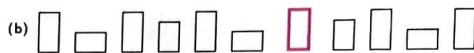
(e) Add the rectangles and triangles. How many total shapes are there now?  $9 + 11 = 20$

(f) There are now more triangles than rectangles.

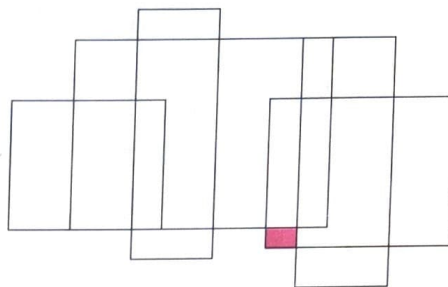
8-4 Practice

151

2 Draw the missing shapes in the pattern.



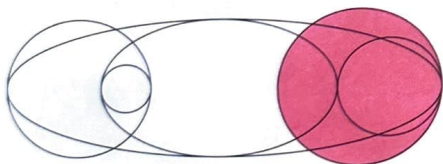
3 Color the smallest rectangle.



152

8-4 Practice

4 Color the biggest circle.

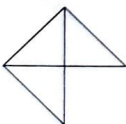


Challenge

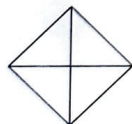
5 There are 3 triangles in the following figure:



How many triangles are in these figures?



5



8

8-4 Practice

153

6 Draw more  $\triangle$ ,  $\square$ ,  $\square$ , and  $\bigcirc$  so that each row  $\leftrightarrow$  and column  $\updownarrow$  has all 4 shapes.


If a student struggles, supply them with paper cutouts to rearrange.

154

8-4 Practice

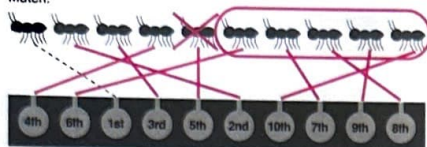


# Chapter 9 Ordinal Numbers

## Exercise 1

### Basics

1 (a) Match.



(b) Circle the last 5 ants.

(c) Cross out the 5th ant.

2 Cross out the 8th leaf from the right.



3 Cross out the 4th paintbrush from the bottom.

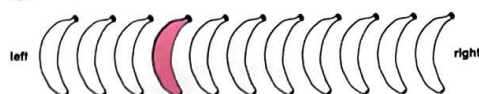


9-1 Naming Positions

155

### Practice

4 Color the 4th banana from the left.



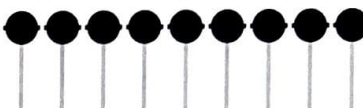
5 Color the first 4 balloons.



6 Circle the 3rd bead from the knot.



7 The lollipop in the middle is 5th from the right.



156

9-1 Naming Positions

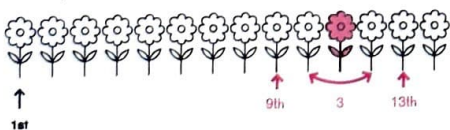
8 The milk is 6th from the left.

How many drinks are to the right of the juice box? 7



9 Color the 11th flower.

How many flowers are between the 9th and the 13th flowers? 3



10 (a) Circle the 3rd item from the top.

(b) The glue stick is 4th from the top.

(c) The pencil is 5th from the bottom.

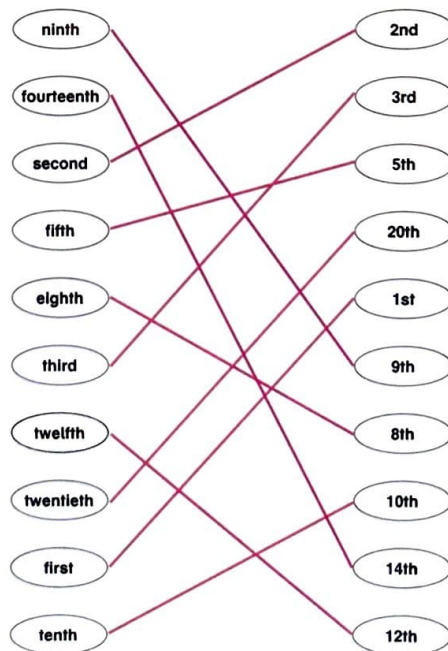
(d) There are 2 items above the 3rd item from the top.



9-1 Naming Positions

157

11 Match.



158

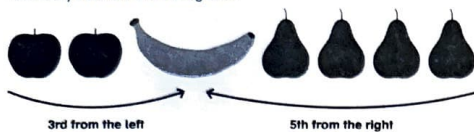
9-1 Naming Positions



Exercise 2

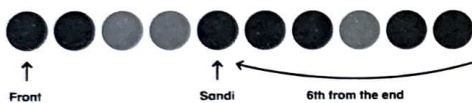
Basics

- 1 Some fruits are lined up on a shelf.  
The banana is 3rd from the left and 5th from the right.  
How many fruits are there altogether?



There are 7 fruits.

- 2 There are 10 people in a line.  
Sandi is 6th from the end.  
What position is she from the front?



She is 5th from the front.

9-2 Word Problems

159

Practice

- 3 There are 12 dogs in a dog show.  
Stella won 3rd place in the dog show.



- (a) How many dogs did better than Stella?

2 dogs did better than Stella.

- (b) How many dogs did Stella do better than?

Stella did better than 9 dogs.

- 4 Emily and LeBron are in a line.  
Emily is 9th in line.  
There are 3 people between LeBron and Emily.  
LeBron is in front of Emily.  
What position in line is LeBron?



LeBron is 5th in line.

9-2 Word Problems

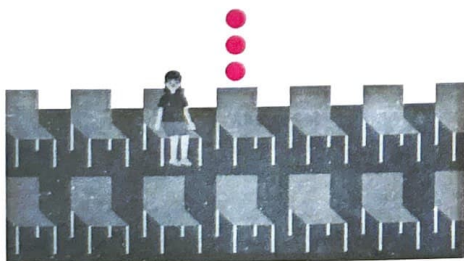
160

- 5 There is a bird in a row of trees.  
The bird is in the 5th tree from the right and the 6th tree from the left.  
How many trees are there in the row?



There are 10 trees in the row.

- 6 Mei is sitting in the 2nd row from the front  
and 4th row from the back.  
How many rows of chairs are there?



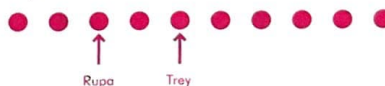
There are 5 rows of chairs.

9-2 Word Problems

161

Challenge

- 7 Rupa is the 3rd person in line.  
Trey is behind Rupa.  
There is one person between Rupa and Trey.  
Trey is 6th from the end.



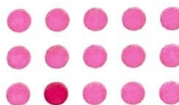
- (a) There are 10 people in line.

- (b) There are 2 people in front of Rupa.

- (c) There are 5 people behind Trey.

- (d) Trey is 5th from the front.

- 8 Each row of chairs has the same number of chairs.  
Taylor is in the 2nd chair from the left,  
the 4th chair from the right,  
the 1st row from the front,  
and the 3rd row from the back.  
How many chairs are there?



Remind students of Q5 & Q6. They can draw a dot or use a counter for Taylor, and then add counters to the left and right to make the row Taylor is in, then the 2 rows behind her.

There are 15 chairs.

9-2 Word Problems

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Exercise 3

Check

1



- Circle the 1st snowman from the right.
- Draw a hat on the 4th snowman from the left.
- Draw noses on 3 of the snowmen. Which 3 can vary.
- Draw buttons on the 3rd snowman from the right.
- The biggest snowman is 6th from the left.
- The smallest snowman is 2nd from the left.
- How many snowmen are between the 3rd and 6th snowmen? 2
- Mariya made some more snowmen.  
The 6th snowman from the left is now in the middle.  
How many snowmen are there now?

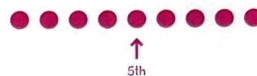


There are now 11 snowmen.

9-3 Practice

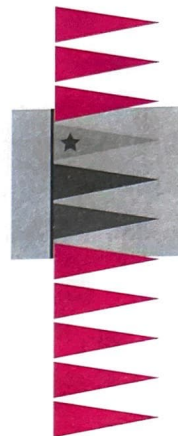
163

- 9 pies are lined up in a row.  
Alex picked the pie in the middle of the row.  
What position is the pie he picked from the left?



The pie Alex picked is 5th from the left.

- There are flags on a pole.  
The flag with a star is the 4th from the top and the 8th from the bottom.  
How many flags are on the pole?

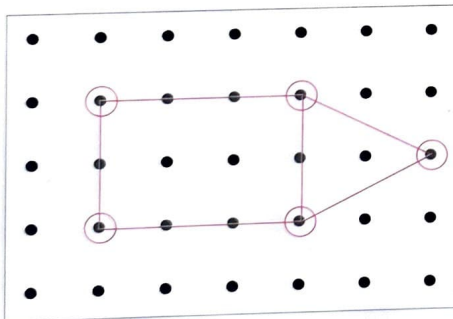


There are 11 flags on the pole.

164

9-3 Practice

4

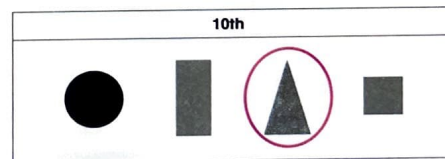
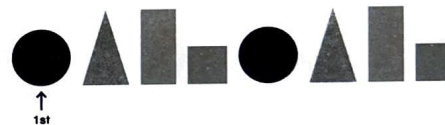


- Circle the following dots:  
2nd from the left and 2nd from the top.  
1st from the right and 3rd from the top.  
3rd from the right and 4th from the bottom.  
5th from the left and 2nd from the bottom.  
6th from the right and 4th from the top.
- Draw lines between the circled dots to make a rectangle and a triangle.

9-3 Practice

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- Circle the shape that will be 10th in the pattern.



Challenge

- (a) Draw what comes next.



- How many shapes will be in the 6th rectangle? 14

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9-3 Practice



Exercise 4

Check

- 1 (a) Write the numbers in order from least to greatest.



1st

- (b) In the 6th box, write the number that comes next in the pattern.

- (c) Add the 1st and 3rd number in the pattern.

$$\boxed{7} + \boxed{11} = \boxed{18}$$

- (d) Subtract the 1st number from the 6th number in the pattern.

$$\boxed{17} - \boxed{7} = \boxed{10}$$

- (e) Add the first 2 numbers in the pattern.

$$\boxed{7} + \boxed{9} = \boxed{16}$$

- (f) Subtract the 2nd number from the 5th number in the pattern.

$$\boxed{15} - \boxed{9} = \boxed{6}$$

2

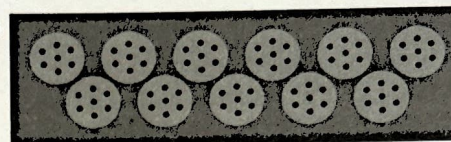


Kai collected 11 shells.  
She put back 6 of them.  
How many does she have now?

$$\boxed{11} - \boxed{6} = \boxed{5}$$

She has 5 shells now.

3

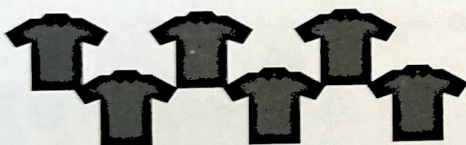


Joseph had 11 cookies.  
He got 6 more.  
How many does he have now?

$$\boxed{11} + \boxed{6} = \boxed{17}$$

He has 17 cookies now.

4



Logan gave away 9 shirts.  
He now has 6 shirts.  
How many shirts did he have at first?

$$\boxed{9} + \boxed{6} = \boxed{15}$$

He had 15 shirts at first.

5



Lucia had 9 flowers.  
She gave some of them to her sister.  
She now has 6 flowers.  
How many did she give away?

$$\boxed{9} - \boxed{6} = \boxed{3}$$

She gave away 3 flowers.

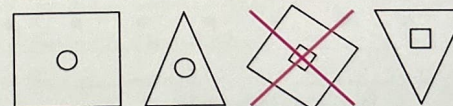
- 6 Cross out any that are less than 15.

$$\boxed{7 + 9} \quad \boxed{8 \times 3} \quad \boxed{19 - 3} \quad \boxed{1 \times 3} \quad \boxed{16 \div 5}$$

- 7 Cross out any that are more than 8.

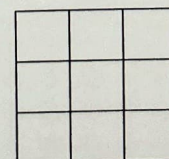
$$\boxed{5 \div 6} \quad \boxed{2 + 5} \quad \boxed{17 \times 8} \quad \boxed{11 - 4} \quad \boxed{17 \div 6}$$

- 8 Cross out the one that does not belong.



Challenge

- 9 How many squares are there? (There are more than 9.)



There are 9 small, 4 middle-sized, and 1 large square. Refer students back to Q5 in Exercise 8-5, and help them realize the squares can overlap.

There are 14 squares.