YEAR 1 STUDENT BOOK

Mathseeds

Add and Subtract to 20

My Name

www.mathseeds.co.uk

Mathseeds Add and Subtract to 20 Year 1 Student Book

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Contents

Topic 1: Add to 10

Page		Date Completed
1	• Count on to add	/ /
2	• Count on a number line	/ /
3	• Add 3 numbers	/ /
4	• Write the sum	/ /
5	• Fluent addition to 10	/ /
6	• Toy cars problem	/ /

Topic 2: Add to 20

Page		Date Completed
7	• Add to 20	/ /
8	• Number line addition	/ /
9	• Number sentences	/ /
10	• Equal sums	/ /
11	• The equals sign	/ /
12	• Writing sums	/ /
13	• Different but the same problem	/ /

Topic 3: Doubles

Page		Date Completed
14	• Counting doubles	/ /
15	• Draw doubles	/ /
16	• Adding doubles	/ /
17	• Doubling	/ /
18	• Double marbles problem	/ /
19	• Near doubles	/ /
20	• Adding near doubles	/ /
21	• Near doubling	/ /
22	• Domino dots problem	/ /

Contents

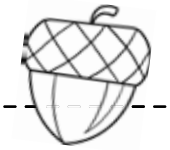
Topic 4: Subtract within 10

Page		Date Completed
23	• Count to subtract	/ /
24	• Take away	/ /
25	• Number sentences	/ /
26	• Subtract	/ /
27	• Count back	/ /
28	• Number line subtraction	/ /
29	• Take away	/ /
30	• Number lines	/ /
31	• Carrots problem	/ /
32	• Count the difference	/ /
33	• Difference on a number line	/ /
34	• Write the number sentence	/ /
35	• Difference problems	/ /
36	• Find the difference problem	/ /

Topic 5: Subtract within 20

Page		Date Completed
37	• Count the difference	/ /
38	• Number line difference	/ /
39	• Write the number sentence	/ /
40	• Difference problems	/ /
41	• Subtract unknown numbers	/ /
42	• Count the difference	/ /
43	• Number mountain	/ /
44	• Unknown number problems	/ /
45	• Apples and pears problem	/ /

In this book



The **Mathseeds** program teaches children the core maths and problem solving skills needed to be successful at school.

Each online lesson begins by introducing and modelling a mathematical concept. The child then completes a wide range of activities where they practise the new skill. These activities present the content in many different ways so that children learn to use and apply each new skill in a variety of situations.

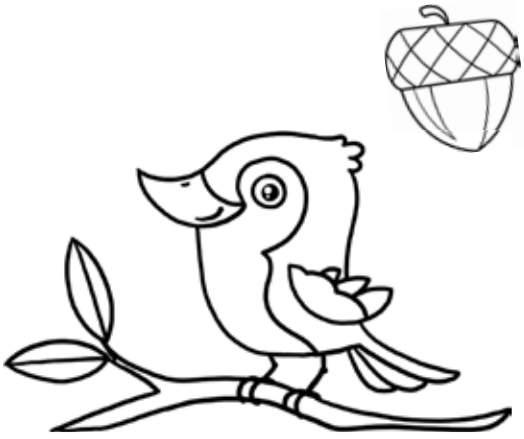
This book is designed to supplement the online program with more exercises in the core mathematical concepts. Each unit focuses on a topic within the main learning strand, presenting a series of pen and paper activities, word problems, puzzles and games to practise their skills and understanding.

The topics in this book align with the following components of the National Curriculum:

Number – addition and subtraction

Pupils should be taught to:

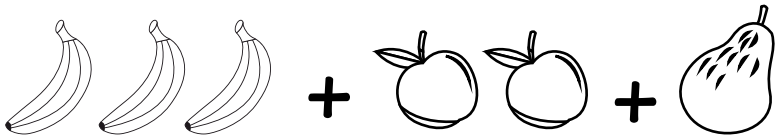
- read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9.

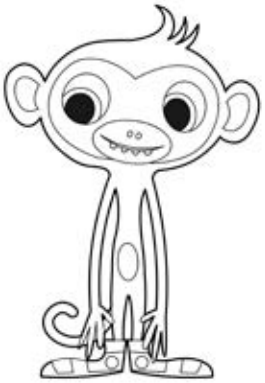


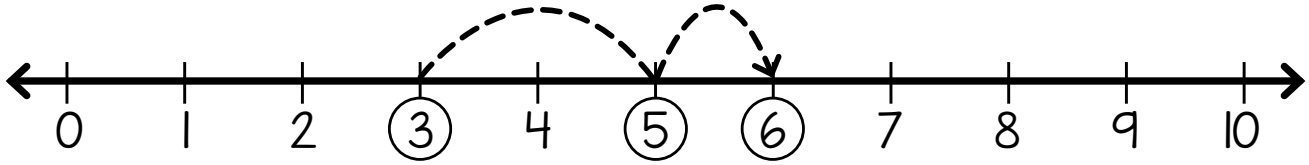
Count on to add

Add to 10

1 Add Mango's fruit together.

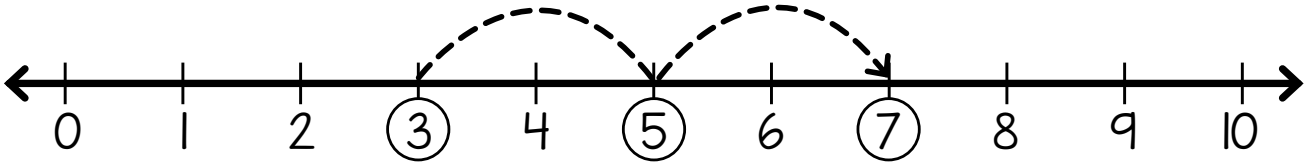




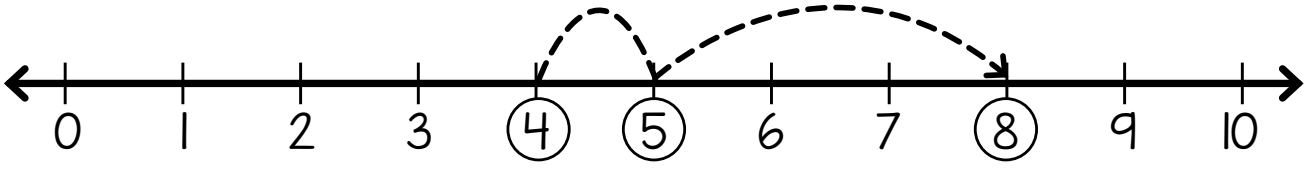


3 + 2 + 1 = ☐

2 Find the answers.



3 + 2 + 2 = ☐



4 + 1 + 3 = ☐

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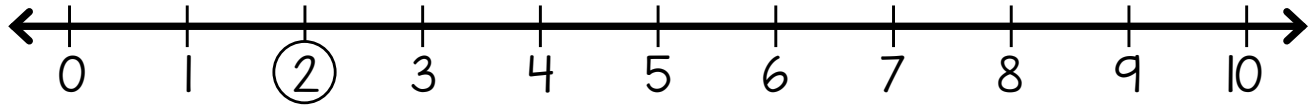
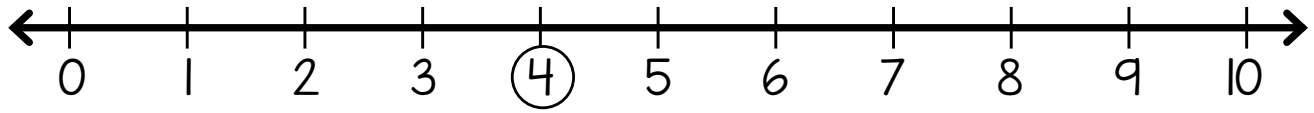
Count on a number line

Add to 10

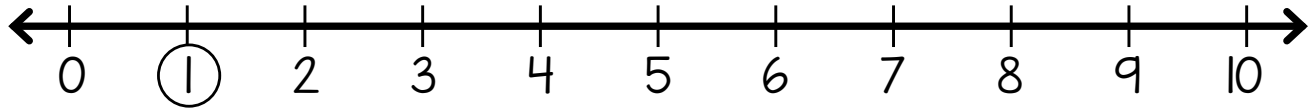
Use the number lines to find the answers.



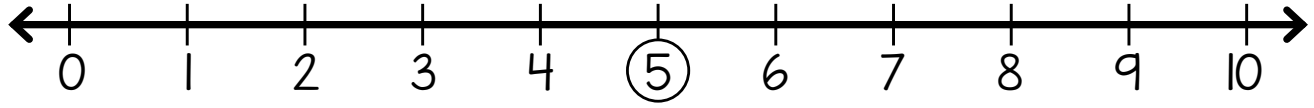
$2 + 3 + 2 = \square$



$4 + 2 + 4 = \square$



$1 + 3 + 5 = \square$



$5 + 2 + 3 = \square$

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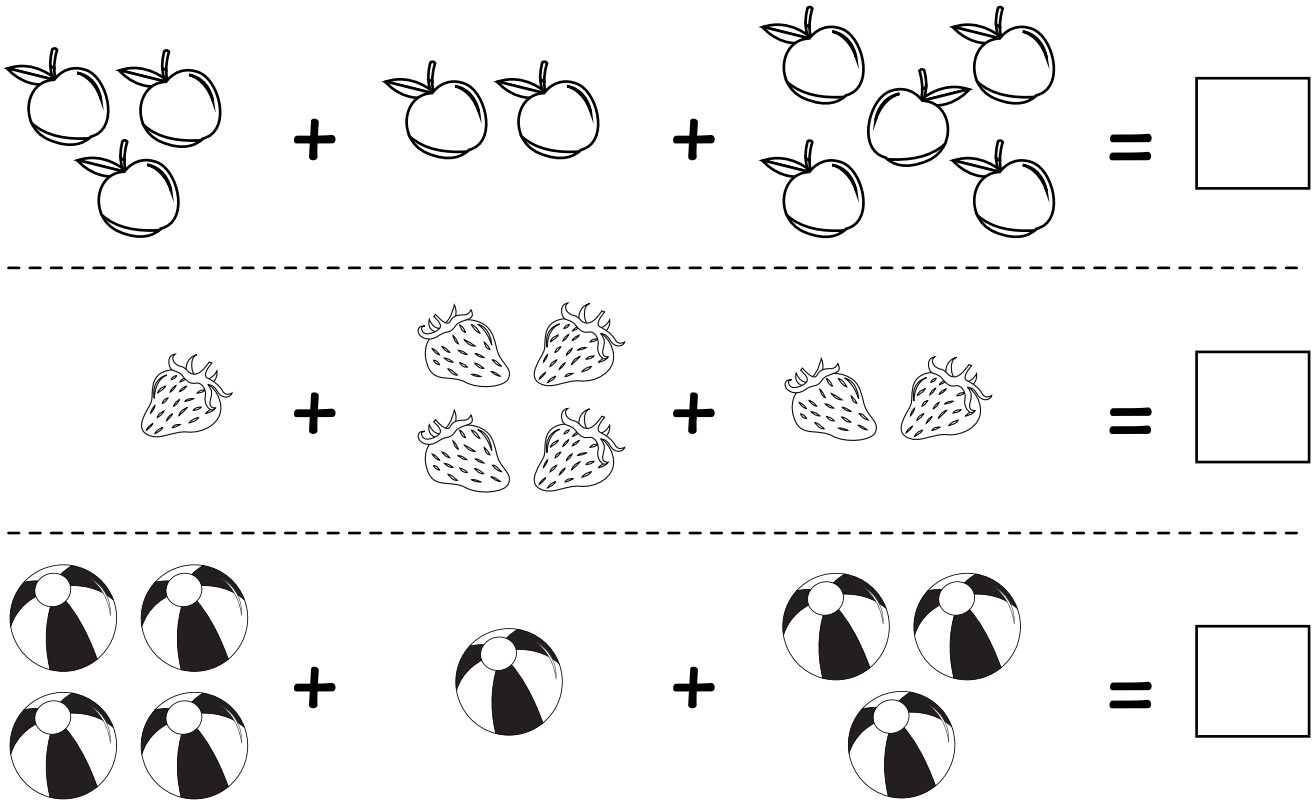
Add 3 numbers

Add to 10

1 Count and add.



2 Find the answers.

1 + 5 + 2 = ☐

5 + 3 + 1 = ☐

2 + 4 + 2 = ☐

4 + 5 + 1 = ☐

3 + 2 + 4 = ☐

2 + 5 + 2 = ☐

3 Find the missing numbers.

3 + 3 + ☐ = 7

5 + 2 + ☐ = 10

1 + 1 + ☐ = 5

4 + 2 + ☐ = 8

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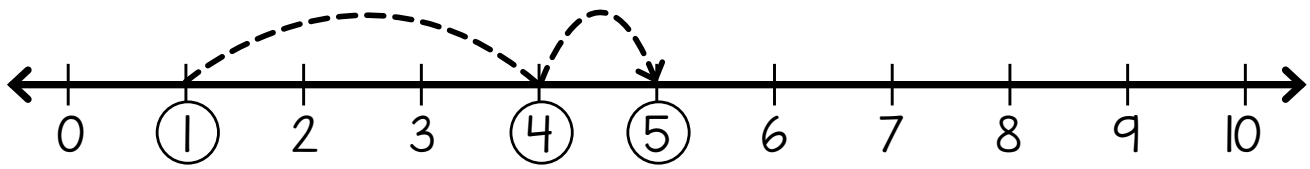
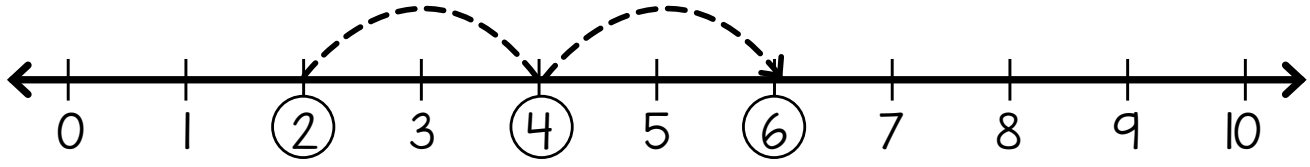
Write the sum

Add to 10

Fill in the number sentences.



□ + □ + □ = □



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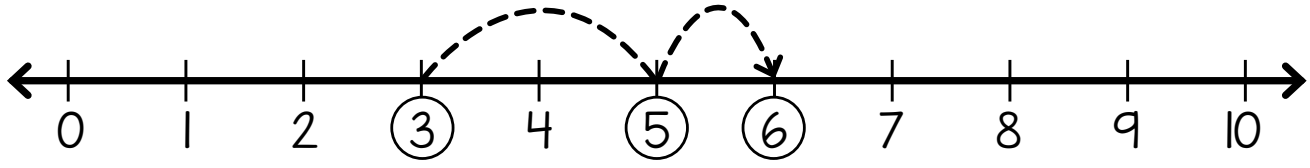

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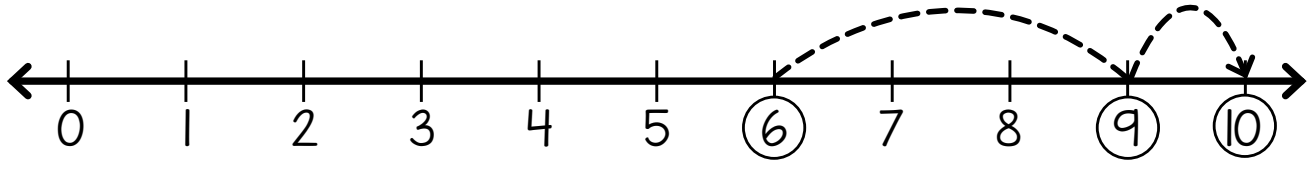

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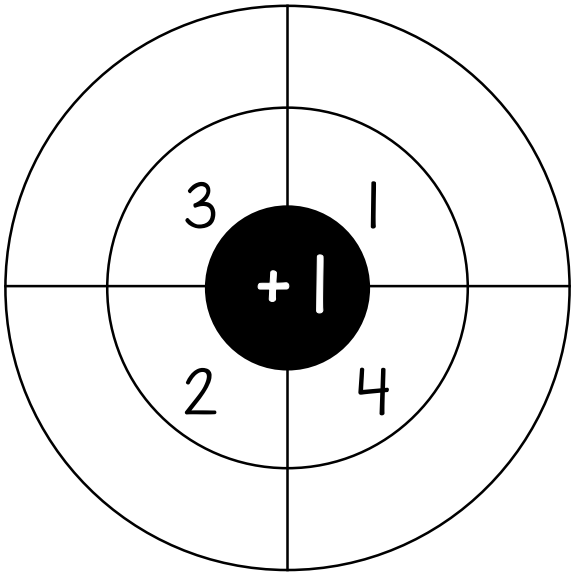
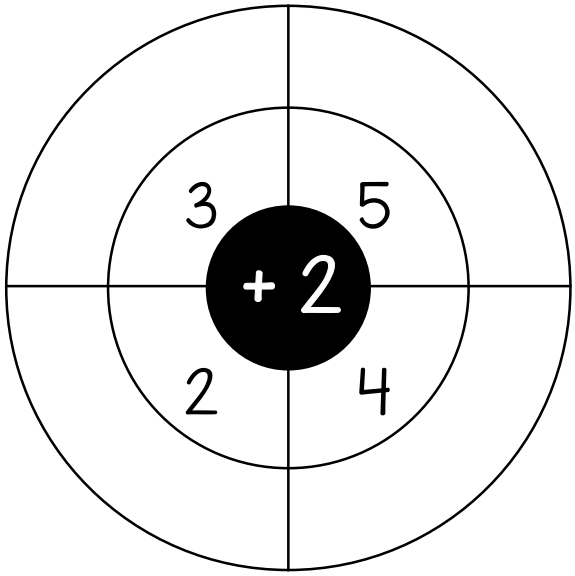
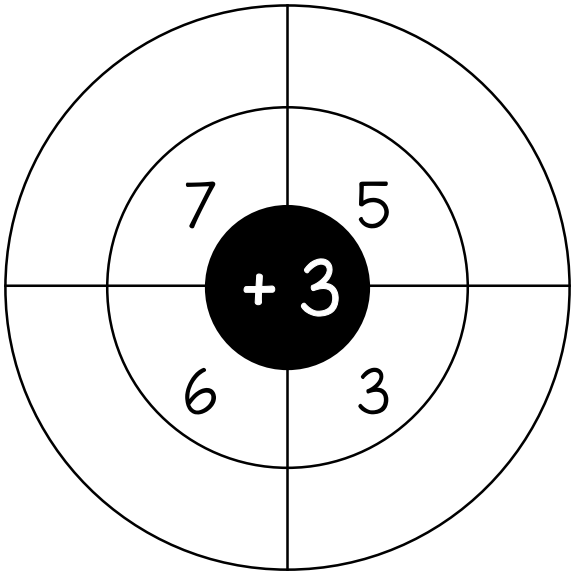
Fluent addition to 10

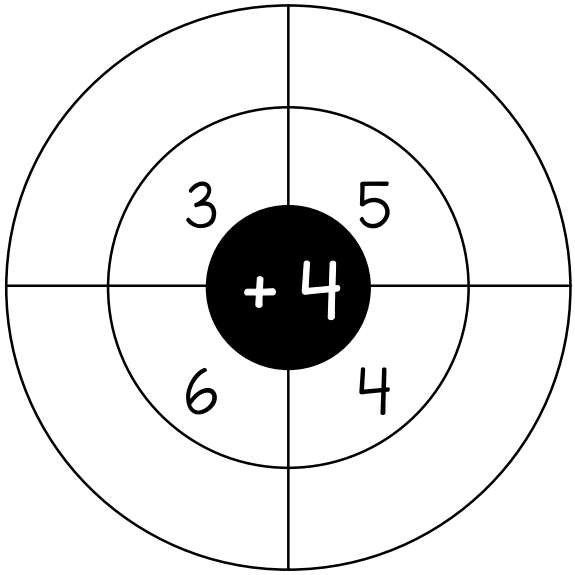
Add to 10

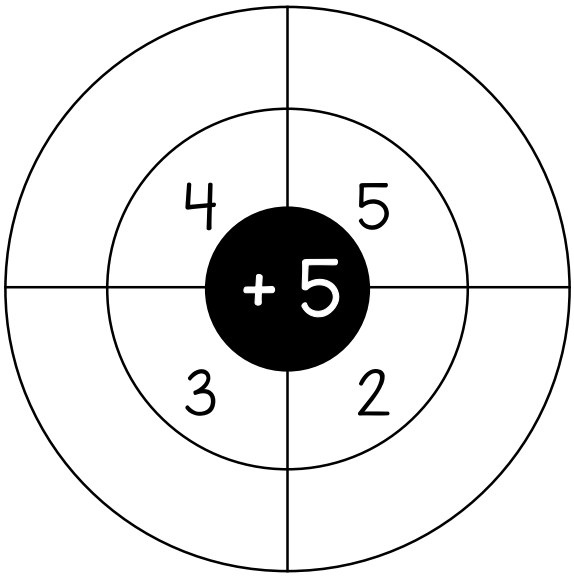
Add numbers to the middle number in each wheel.

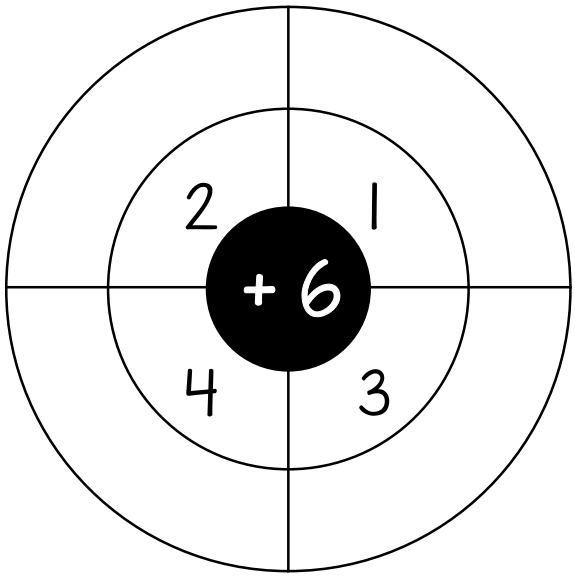












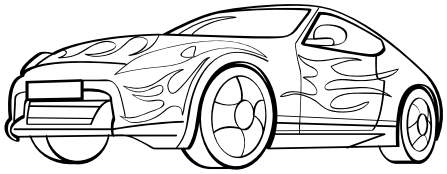
Toy cars problem

Add to 10

1 Read.

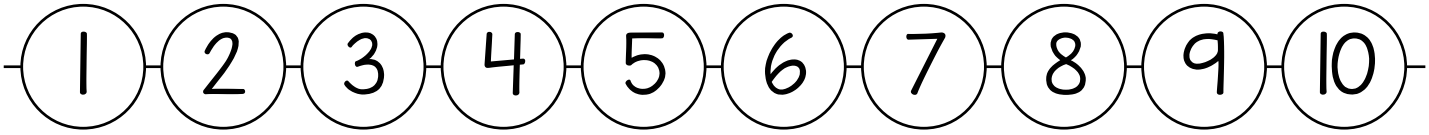
Waldo has 5 toy cars, Mango has 3 toy cars and Doc has 2 toy cars.

How many cars altogether?



2 Underline the question. **3** Circle the facts.

4 Complete the number line to add.



5 How many toy cars altogether? _____

6 Solve the same problem in a different way.

7 Which strategy have you used here?

_____

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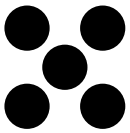
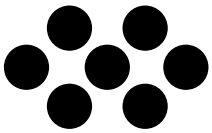
Add to 20

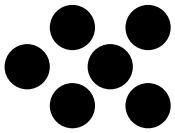
1 Count on from the first number. Find the answer.



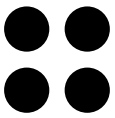
7 + 5 = ☐



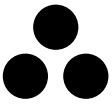
8 + 7 = ☐



9 + 6 = ☐



13 + 4 = ☐



11 + 3 = ☐

16 + 2 = ☐

2 Count on from the larger number.

7 + 4 = ☐

8 + 5 = ☐

10 + 2 = ☐

12 + 3 = ☐

14 + 2 = ☐

15 + 4 = ☐

9 + 8 = ☐

11 + 5 = ☐

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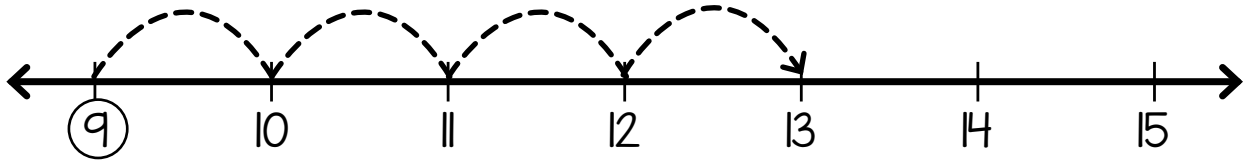
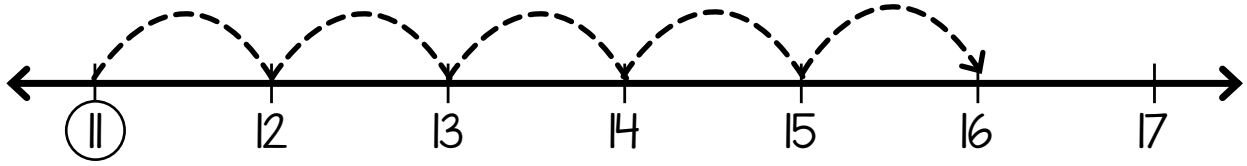
Number line addition

Add to 20

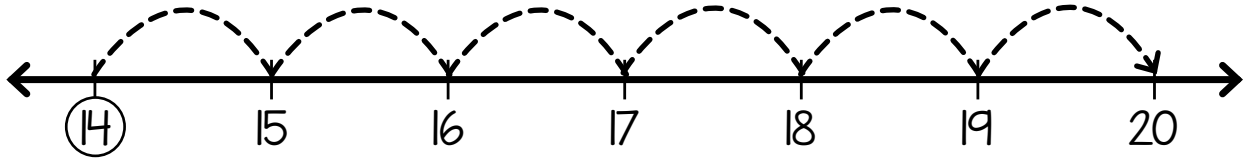
1 Use the number lines to find the answers.



$9 + 4 =$ ☐

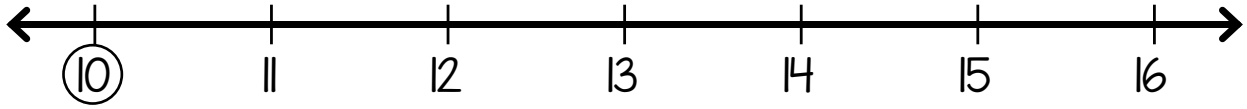


$11 + 5 =$ ☐

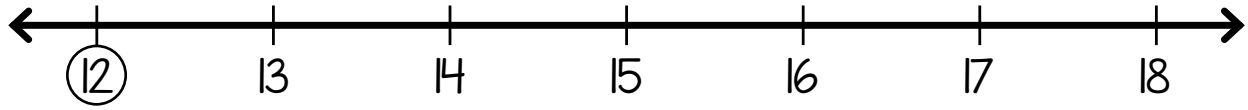


$14 + 6 =$ ☐

2 Find the answers.



$10 + 4 =$ ☐



$12 + 5 =$ ☐

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Number sentences

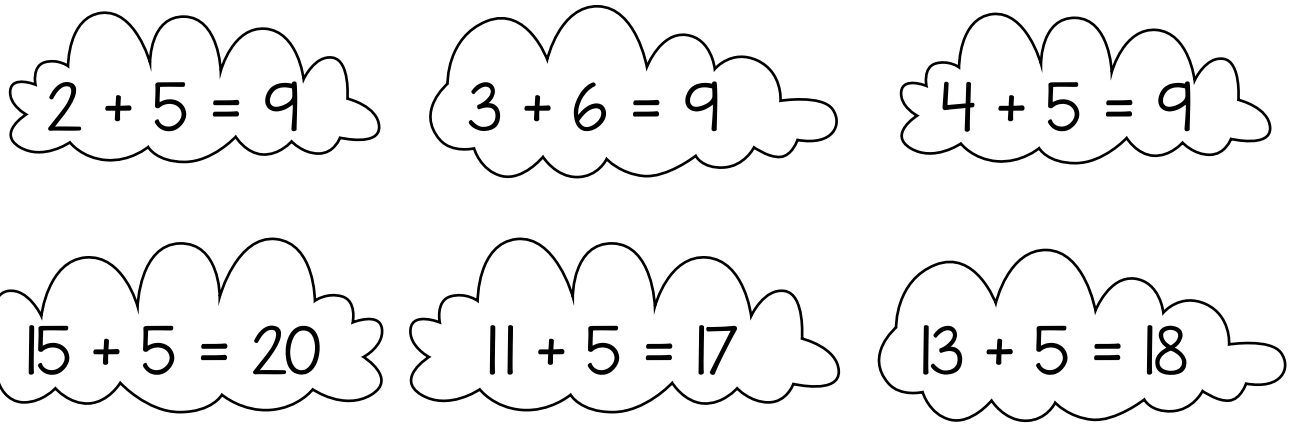
Add to 20

1 Make these sums true.

$1 + \square = 5$ $\square + 3 = 7$ $2 + 6 = \square$

$12 + 5 = \square$ $14 + \square = 19$ $\square + 7 = 20$

2 Colour the true sums. Cross out the false sums.



3 Write three sums which equal the same amount.

$\square + \square = 10$ $\square + \square = 10$ $\square + \square = 10$

$\square + \square = 15$ $\square + \square = 15$ $\square + \square = 15$

$\square + \square = 18$ $\square + \square = 18$ $\square + \square = 18$

$\square + \square = 20$ $\square + \square = 20$ $\square + \square = 20$

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Equal sums

Add to 20

1 Colour the sums which are equal.
Cross out the sums which are not.

6 + 3 = 1 + 8	4 + 4 = 5 + 5	1 + 5 = 3 + 3
6 + 6 = 11 + 1	10 + 5 = 12 + 3	13 + 6 = 17 + 1

2 Match the equal sums.

1 + 9 =	= 15 + 4
12 + 5 =	= 11 + 3
10 + 9 =	= 10 + 7
7 + 7 =	= 6 + 4

3 Make these equal sums true.

10 + 1 = 9 + ☐

12 + 4 = ☐ + 3

10 + ☐ = 12 + 1

15 + ☐ = 16 + 2

☐ + 4 = 13 + 1

5 + 5 = ☐ + ☐

13 + ☐ = 15 + 2

☐ + ☐ = 11 + 9

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The equals sign

1 Put the correct sign in each box. You can use +, − or =.

10 ☐ 5 ☐ 15

6 ☐ 3 ☐ 3

11 ☐ 2 ☐ 13

10 ☐ 2 ☐ 8

16 ☐ 1 ☐ 17

5 ☐ 4 ☐ 1

2 Colour the equals sign when it is true.
Cross it out if it is false.

4 = 3

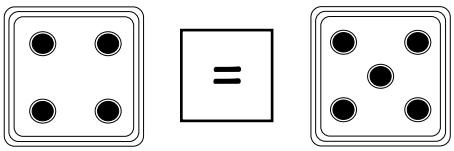
12 + 0 = 10 + 2

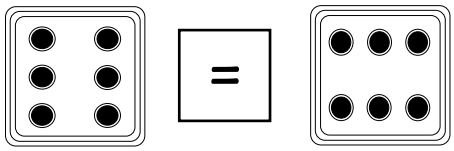
5 + 6 = 12

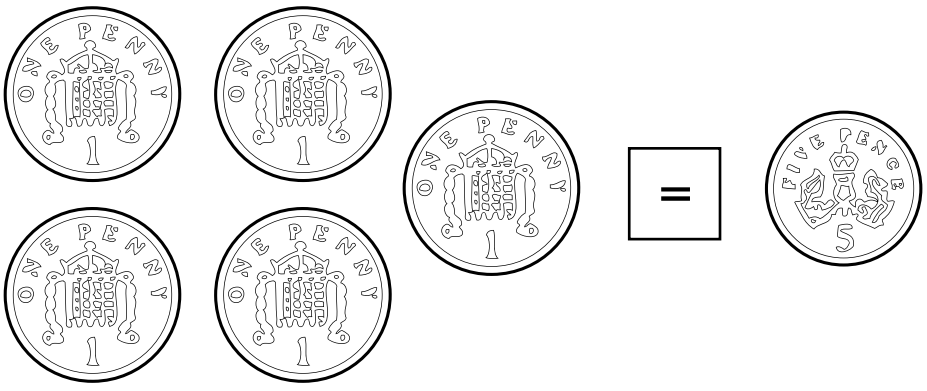
10 + 10 = 18 + 1

5 = 5

11 + 4 = 15







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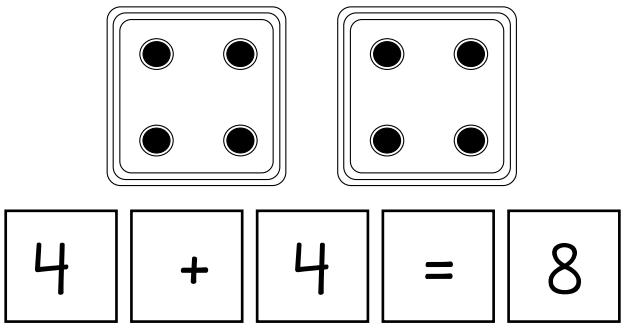
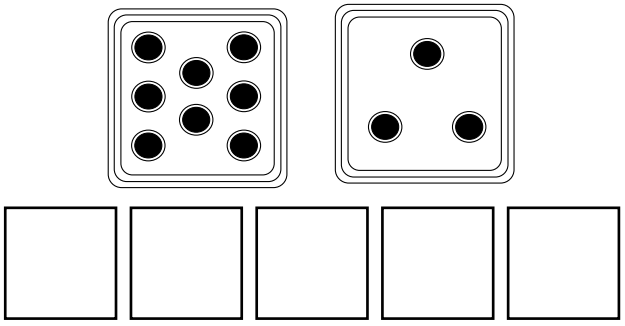
Writing sums

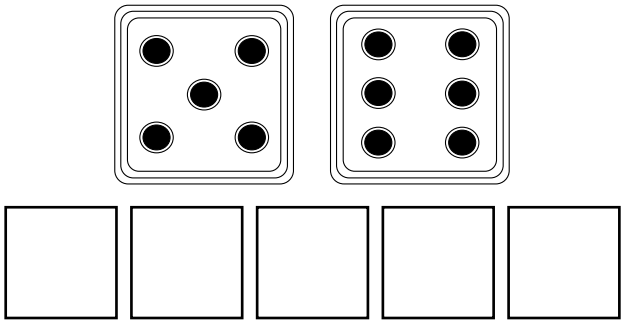
Add to 20

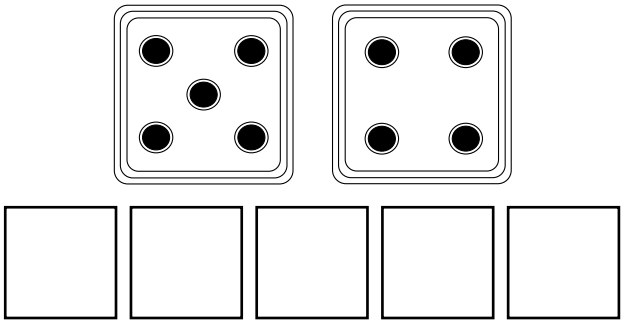
1 Write the sums. The first is done for you.

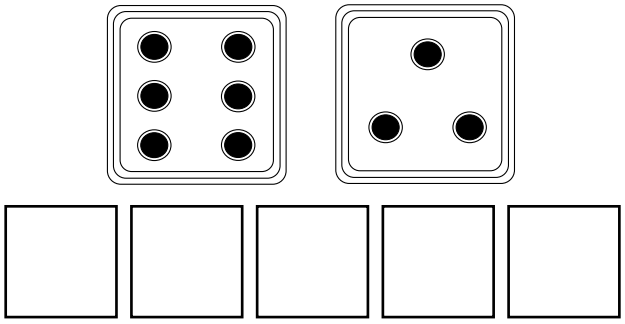


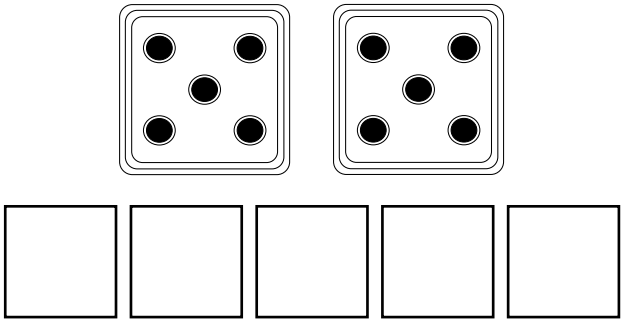
4 + 4 = 8

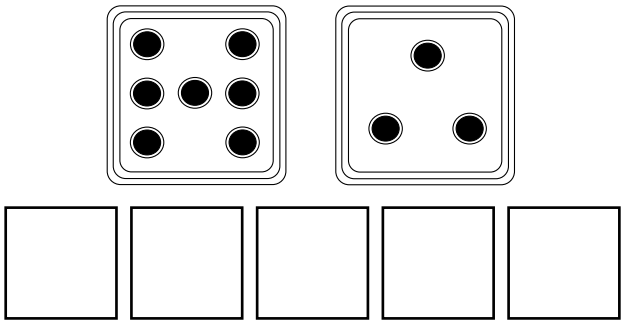


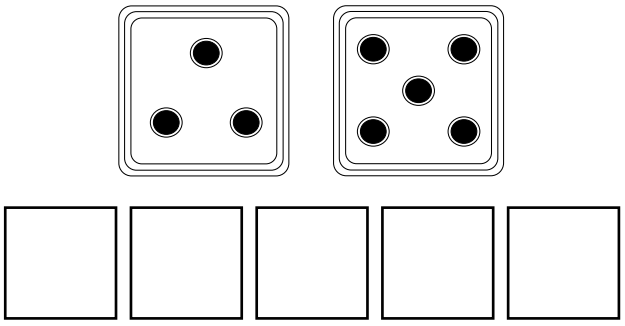












2 Draw lines to join the equal sums.

Mathseeds © Blake eLearning

Different but the same problem

Add to 20

1 Read.

Doc wrote 2 different addition equations with the same answer. What could they be?

2 Underline the question. **3** Circle the facts.

4 Solve it!

5 Which strategy did you use to solve the problem?

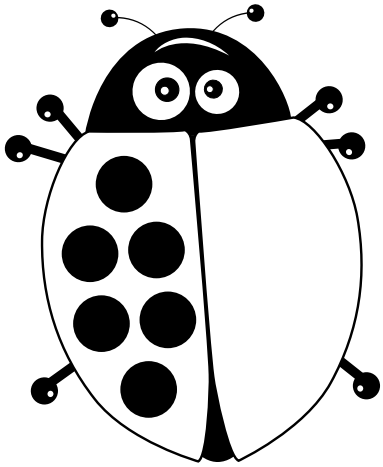
_____

6 Find more addition equations with the same answer.

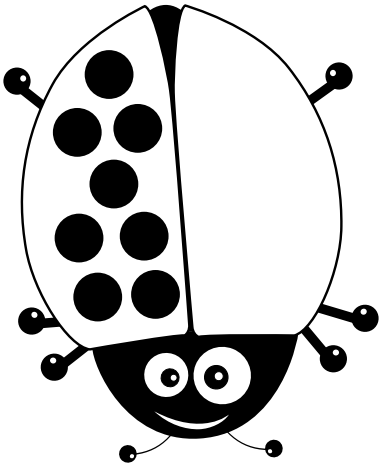
Counting doubles

Doubles

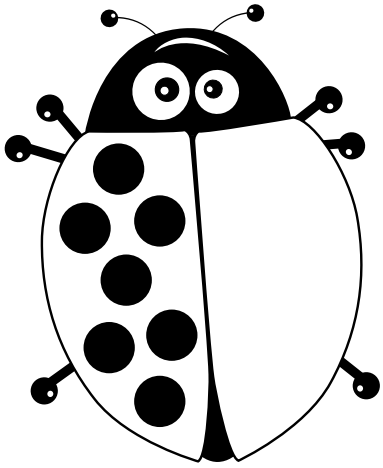
1 Draw matching spots. Write the answers.



Double 6 is ☐

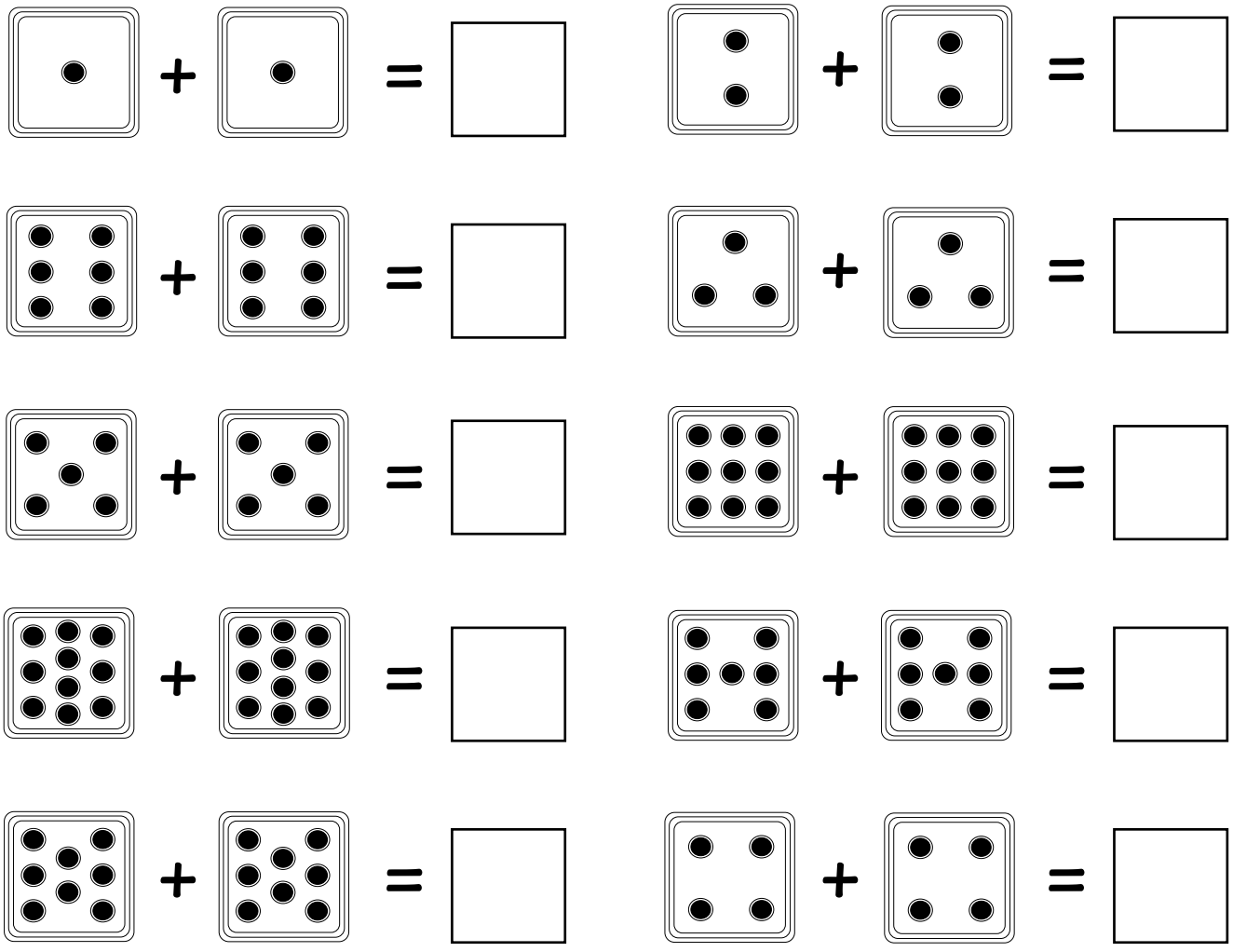


Double 8 is ☐



Double 7 is ☐

2 Write the answers.



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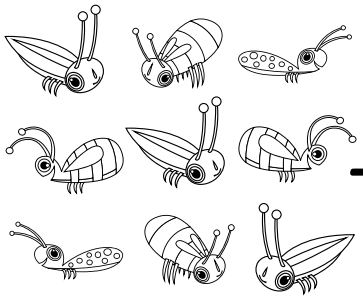
Draw doubles

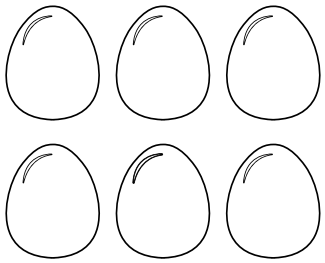
Doubles

Double the number of items. Write the missing numbers.



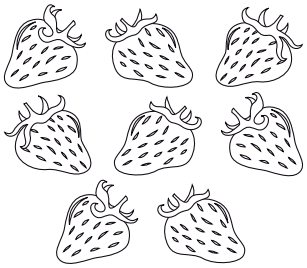
+ ☐

Double ☐ is ☐



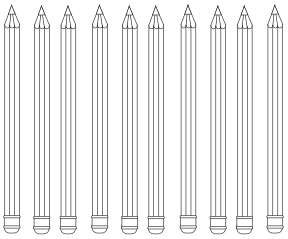
+ ☐

Double ☐ is ☐



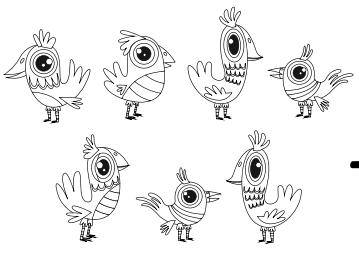
+ ☐

Double ☐ is ☐



+ ☐

Double ☐ is ☐



+ ☐

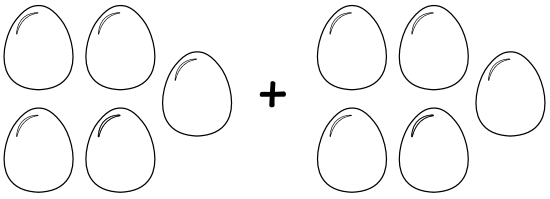
Double ☐ is ☐

Mathseeds © Blake eLearning

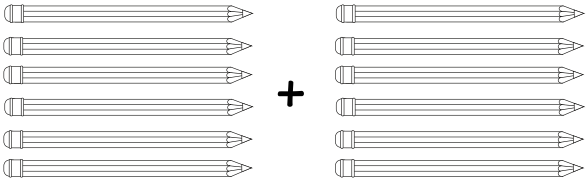
Adding doubles

Doubles

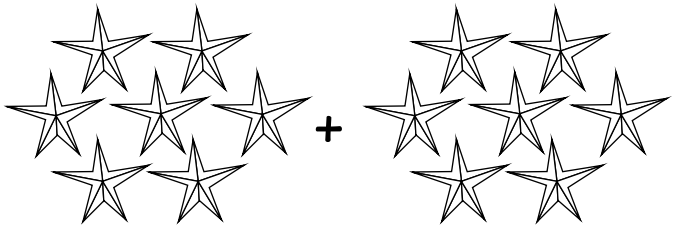
Write the missing numbers.



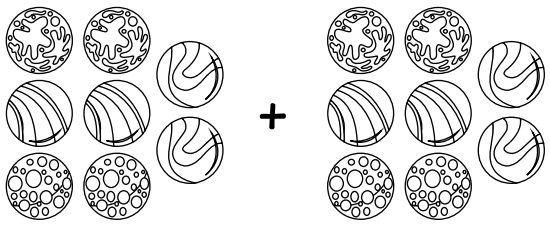
5 + 5 = ☐



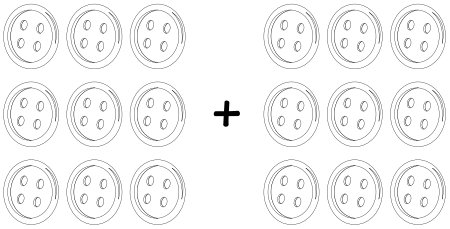
☐ + 6 = ☐



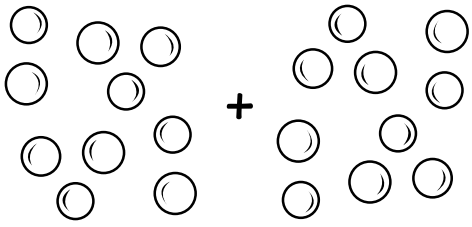
☐ + ☐ = 14



☐ + ☐ = 16



9 + ☐ = 18



☐ + ☐ = ☐

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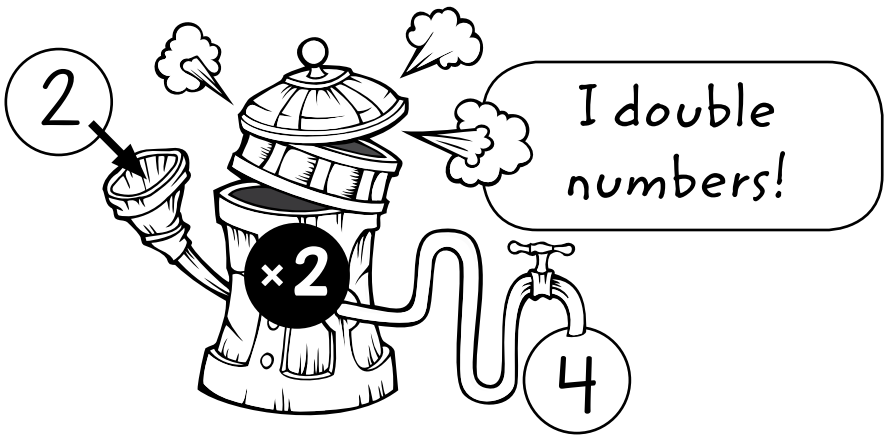
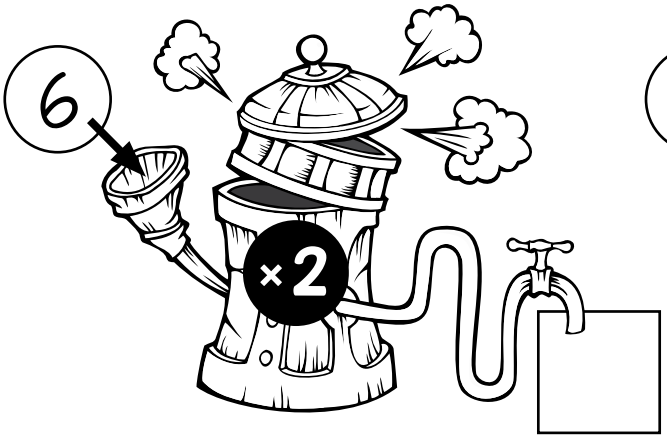
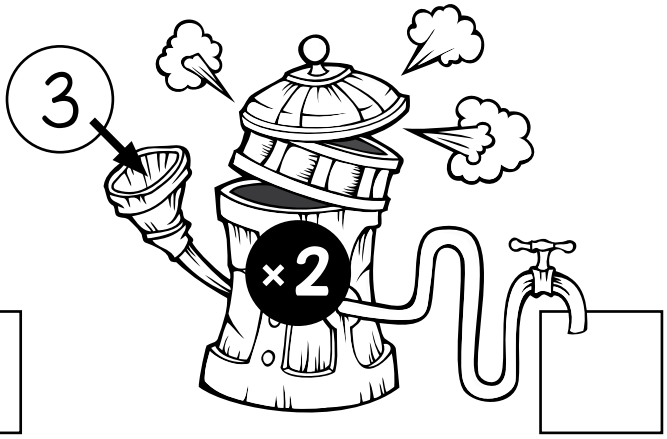
Doubling

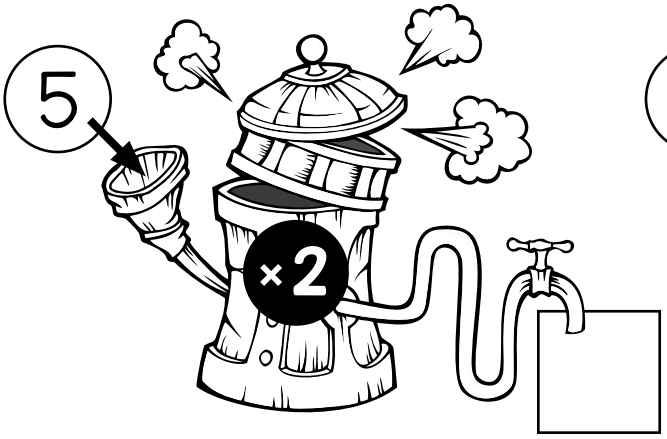
Doubles

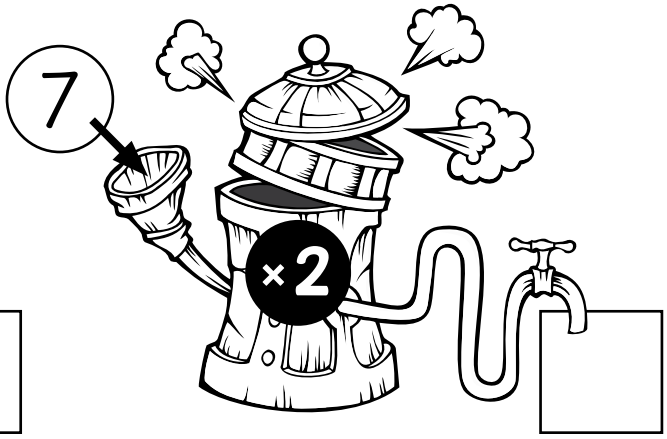


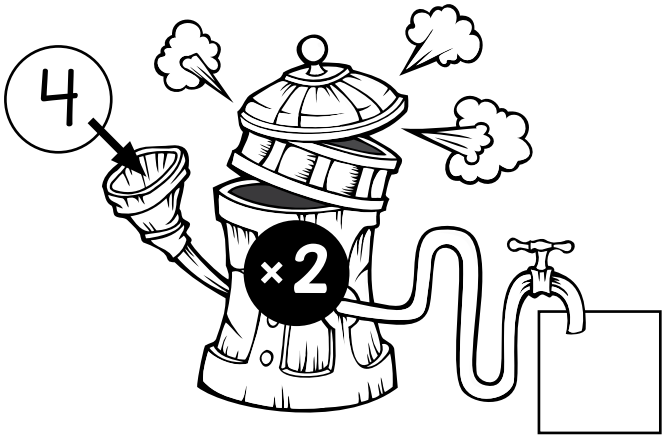
Write the answers.











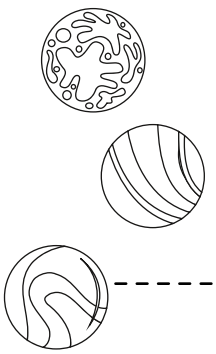
Mathseeds © Blake eLearning

Double marbles problem

Doubles

1 Read.

Ruby has 2 marbles. Dizzy has double the number of marbles as Ruby. Doc has double the number of marbles as Dizzy. Mango has double the number of marbles as Doc. How many marbles do they each have?



2 Underline the question. **3** Circle the facts.

4 How can you solve it?

5 How many marbles do they each have?

Ruby _____ Dizzy _____ Doc _____ Mango _____

6 Who has the most marbles? _____

7 Check with a partner. Tell each other which strategy you used to solve the problem.

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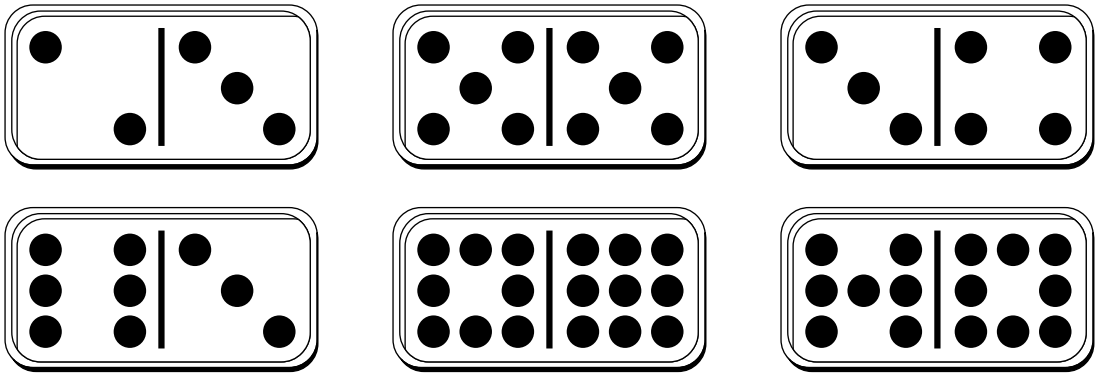
Near doubles

1 Colour the near doubles dominoes.



2 Match each sum to its nearest double.

9 + 10 =	4 + 5 =	1 + 2 =	6 + 7 =
10 + 10	1 + 1	9 + 9	4 + 4
5 + 5	3 + 3	7 + 7	6 + 6
10 + 11 =	5 + 6 =	3 + 4 =	7 + 8 =

3 Complete.

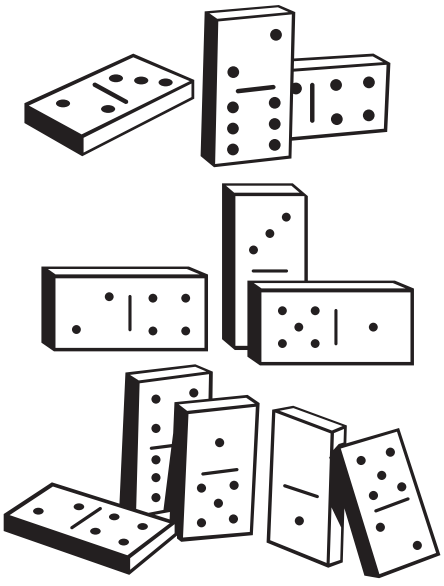
2 + 3 = 2 + 2 + 1 = ☐

4 + 5 = 4 + 4 + 1 = ☐

7 + 8 = 7 + 7 + 1 = ☐

5 + 6 = 5 + 5 + 1 = ☐

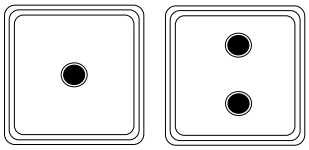
9 + 10 = 9 + 9 + 1 = ☐



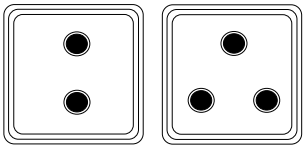
Adding near doubles

Doubles

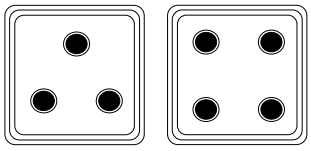
Add Ruby's near double dice rolls.



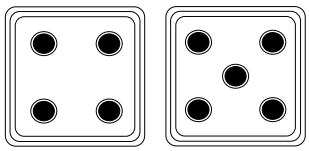
__ + __ + 1 = __



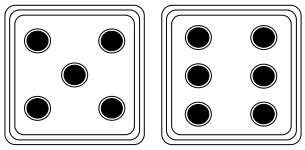
__ + __ + 1 = __



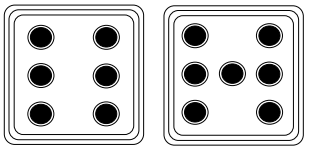
__ + __ + 1 = __



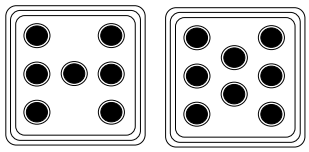
__ + __ + 1 = __



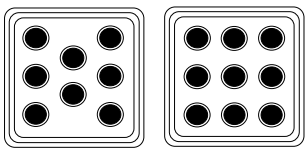
__ + __ + 1 = __



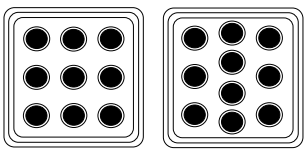
__ + __ + 1 = __



__ + __ + 1 = __



__ + __ + 1 = __



__ + __ + 1 = __

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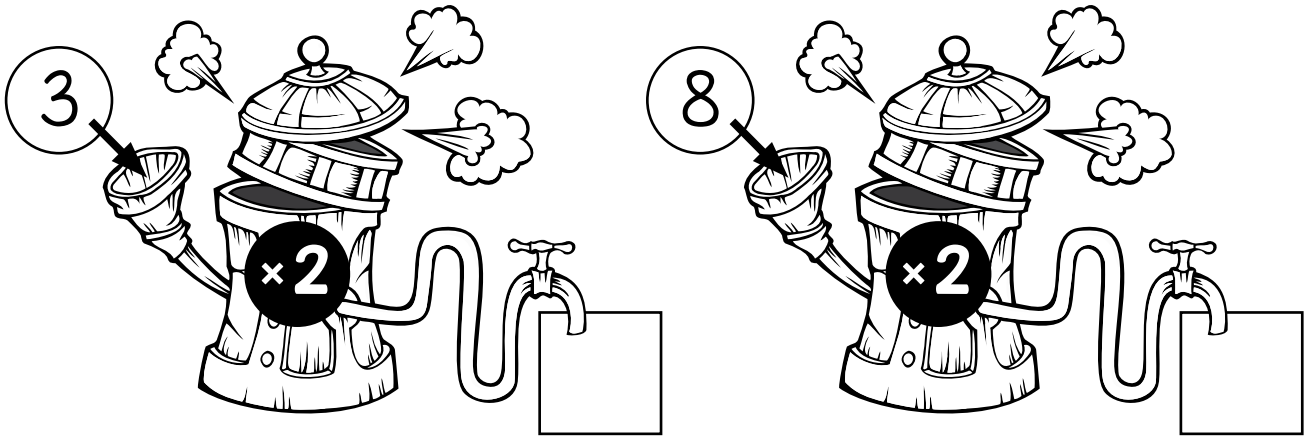
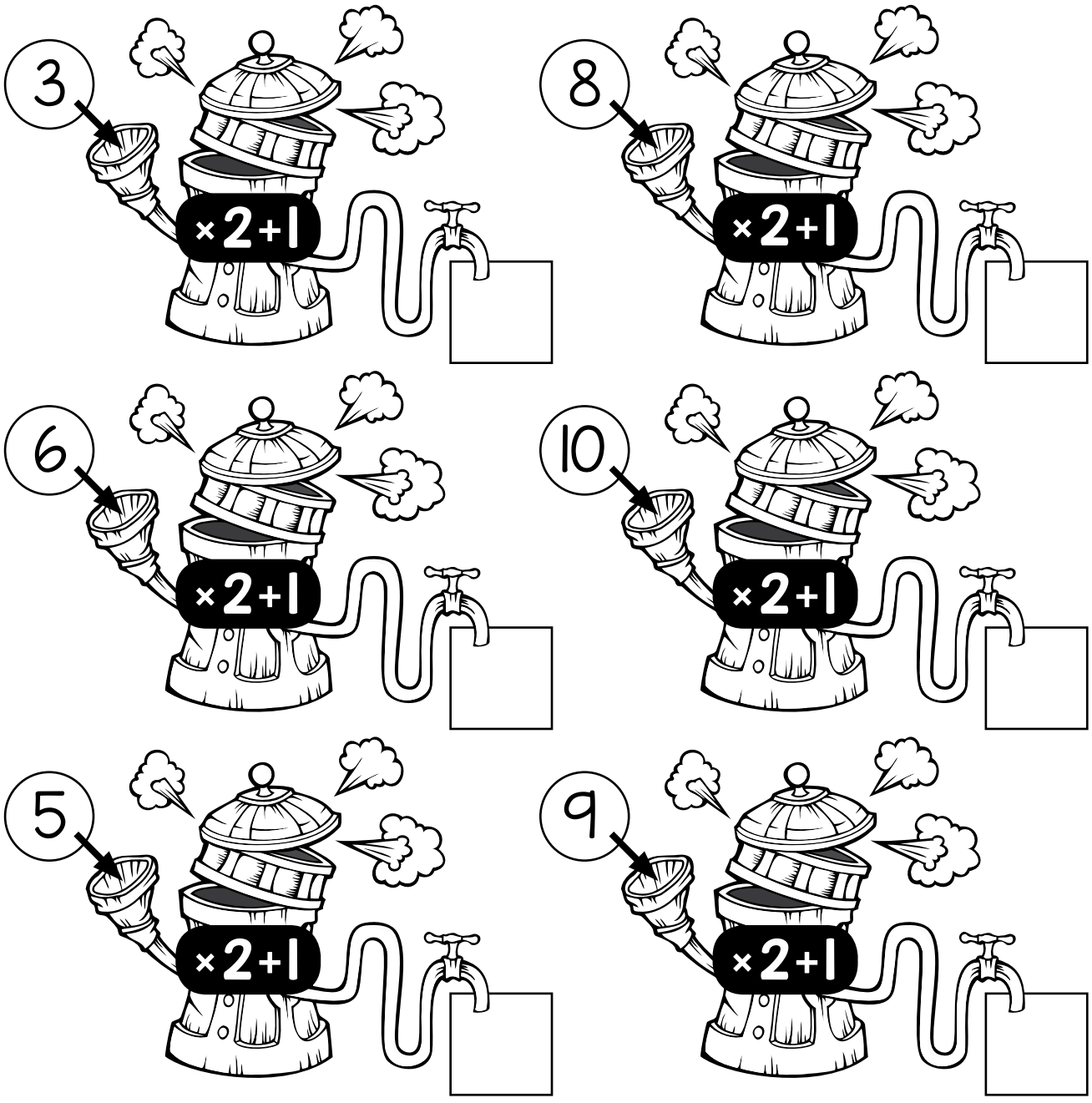
Near doubling

Doubles

1 What comes out of the doubles machine?



2 What comes out of the near doubles machine?

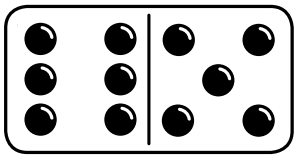


Mathseeds © Blake eLearning

Domino dots problem

Doubles

1 Read.

Doc picked this domino  .

He looked at the dots and quickly found the total. How did Doc find the answer?

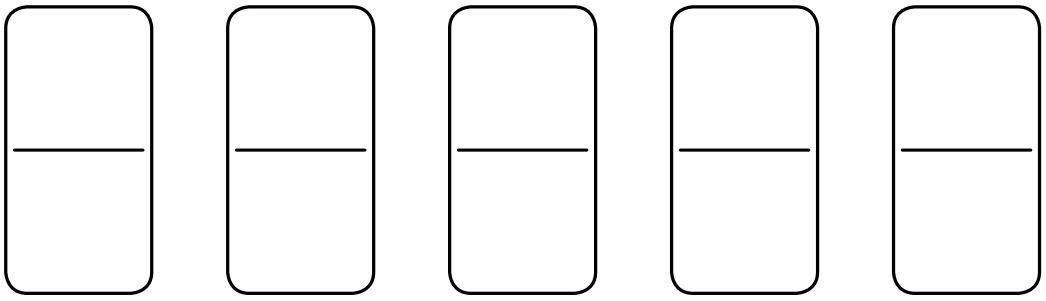
2 Underline the questions. **3** Circle the facts.

4 Use a near doubles strategy to solve the problem. Show your working.

There are _____ dots altogether.

5 Compare your answer with a partner's. Is the answer the same if you used a different double?

6 Make these into a different near doubles domino.



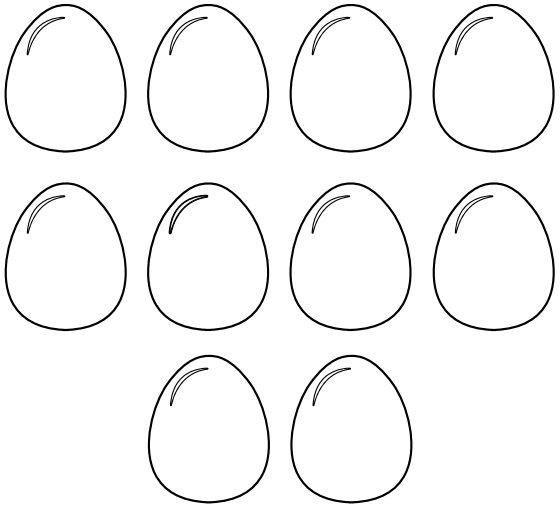
7 Swap with your partner. How quickly can you find all five totals?

Count to subtract

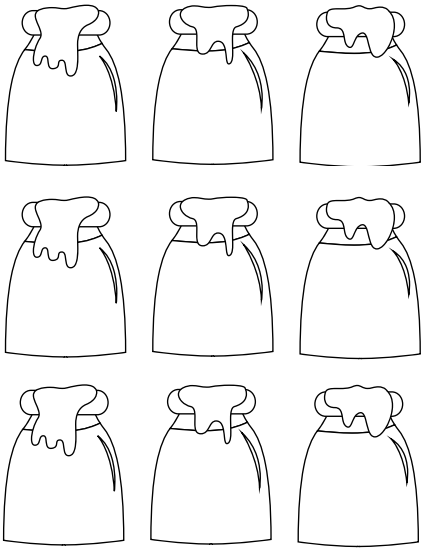
Subtract within 10

Use your hand to cover up. Write the answer.

Cover 5 eggs.
How many left? ☐

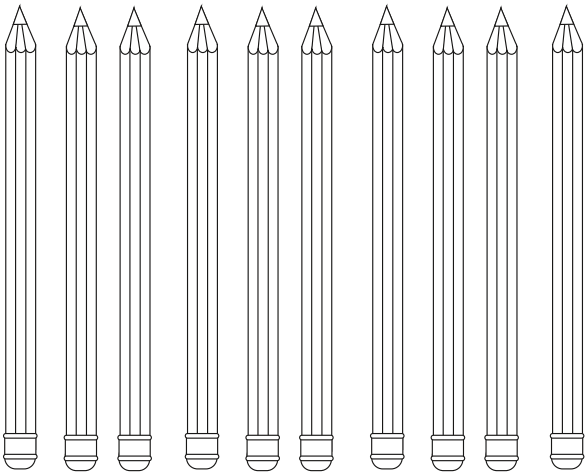


Cover 3 pots.
How many left? ☐



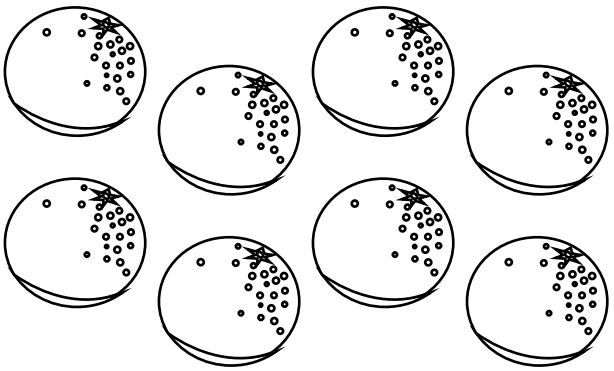
Cover 4 pencils.

10 − 4 = ☐



Cover 1 orange.

8 − 1 = ☐



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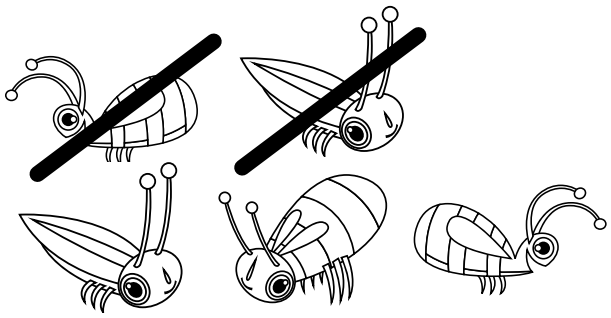
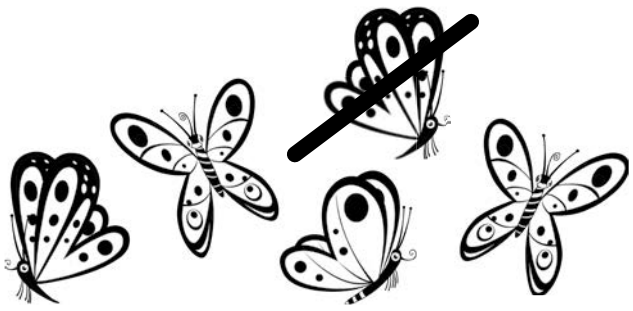
Take away

Subtract within 10

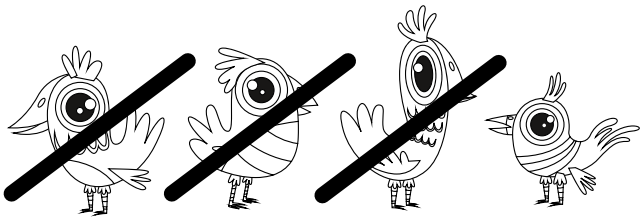
Find the answers.



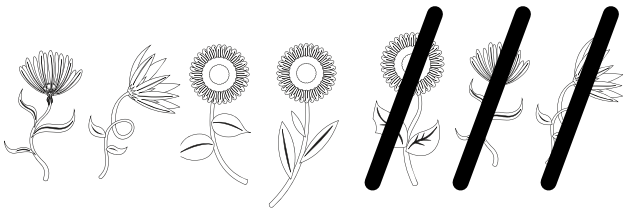
5 - 2 = ☐



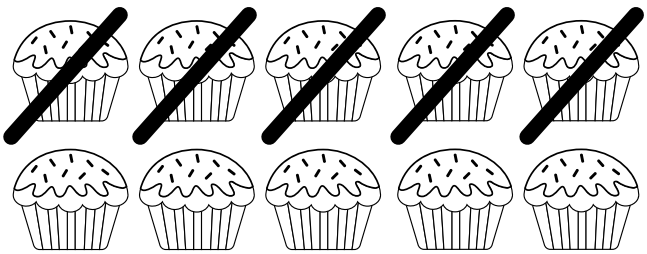
5 - 1 = ☐



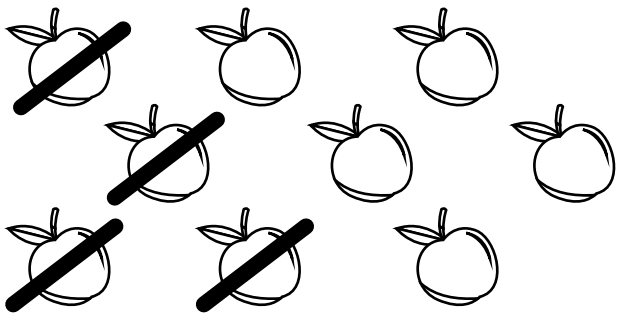
4 - 3 = ☐



7 - 3 = ☐



10 - 5 = ☐



9 - 4 = ☐

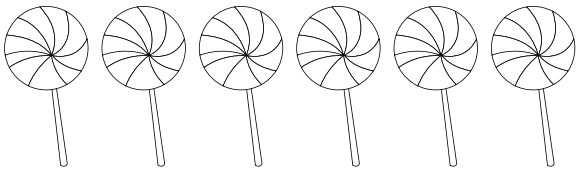
Mathseeds © Blake eLearning

Number sentences

Subtract within 10

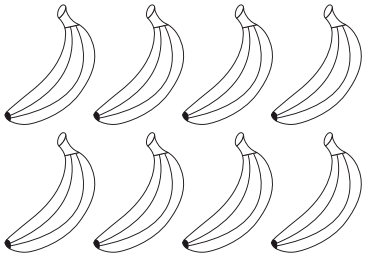
Fill in the number sentences.

Take away 1.



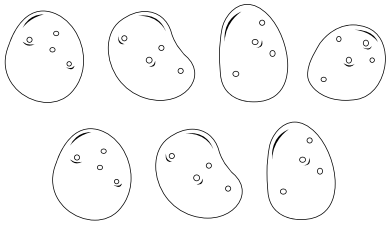
□ − □ = □

Take away 2.



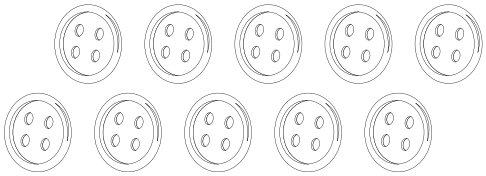
□ − □ = □

Take away 3.



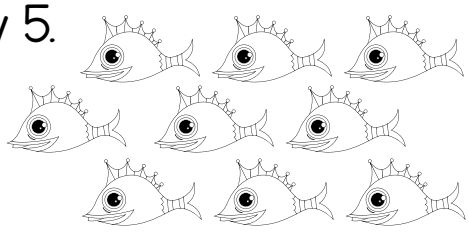
□ − □ = □

Take away 4.



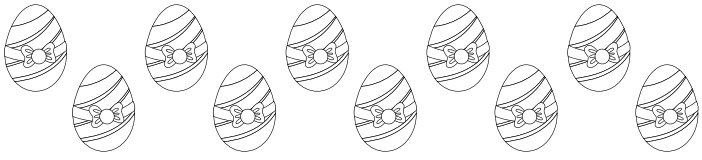
□ − □ = □

Take away 5.



□ − □ = □

Take away 6.



□ − □ = □

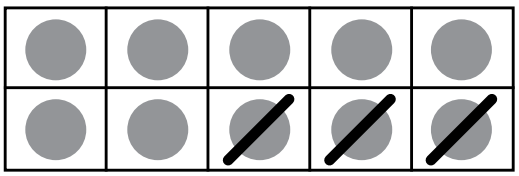
Mathseeds © Blake eLearning

Subtract

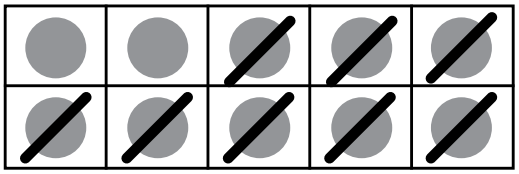
Subtract within 10

1 Write the sums.

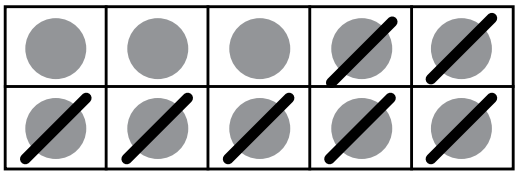
10 - ☐ = ☐



10 - ☐ = ☐



10 - ☐ = ☐



2 Draw.

5

Take away 3.

5 - 3 = ☐

7

Take away 2.

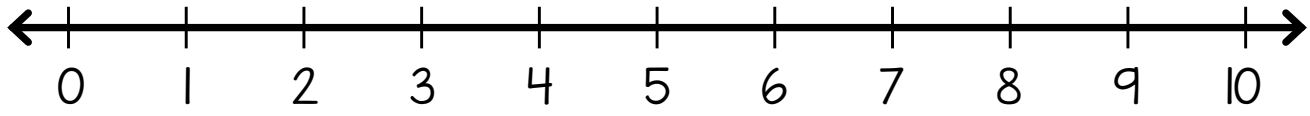
7 - 2 = ☐

Mathseeds © Blake eLearning

Count back

Subtract within 10

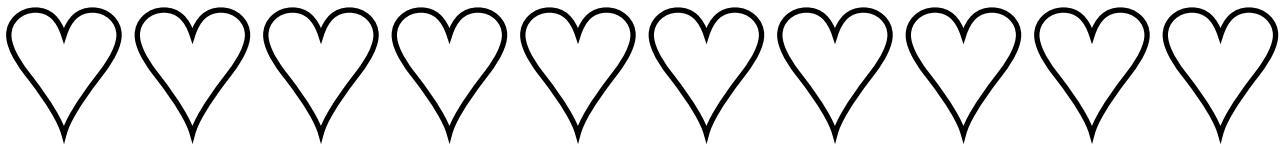
1 How many? Circle the number.

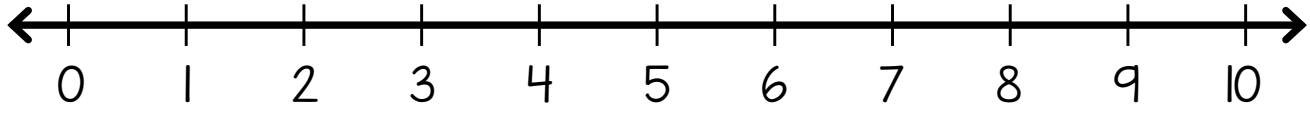


Cross out 3.

Jump back to show how many are left. ☐

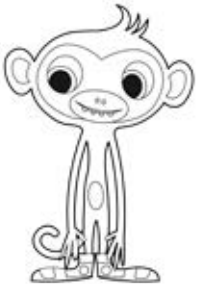
2 How many? Circle the number.





Cross out 5.

Jump back to show how many are left. ☐



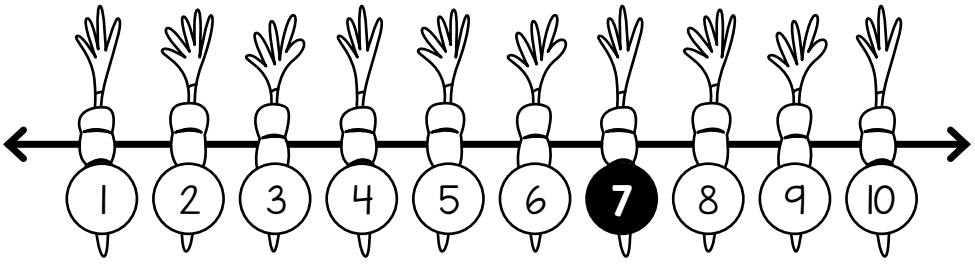
3 Write a number sentence for each take away above.

☐ − ☐ = ☐ ☐ − ☐ = ☐

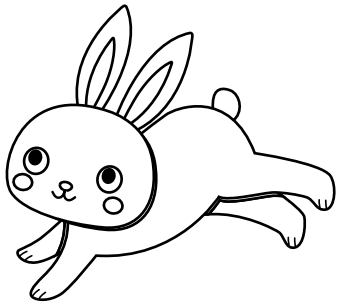
Number line subtraction

Subtract within 10

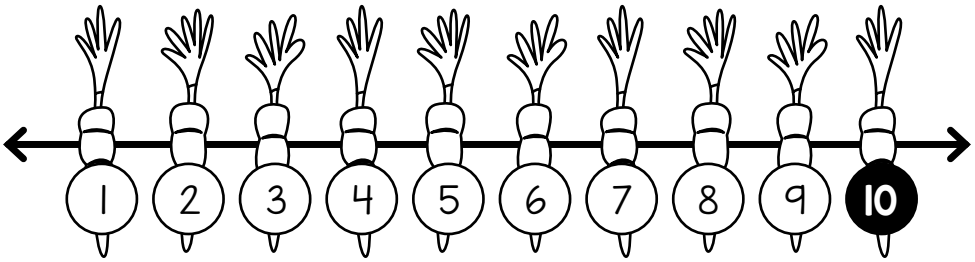
1 Hop back 3 places.



The number is ☐

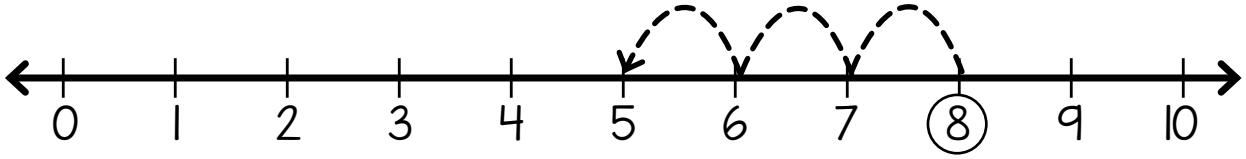


Hop back 8 places.

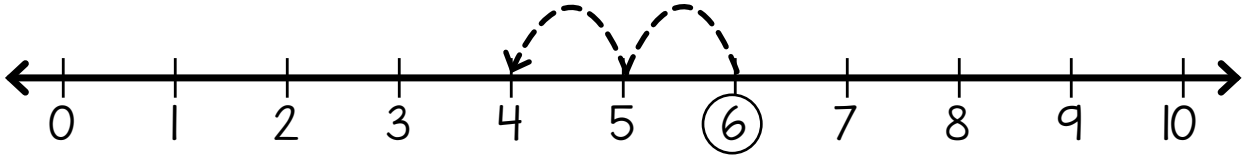


The number is ☐

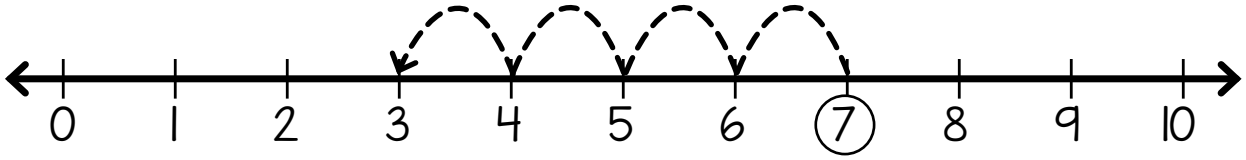
2 Trace the hops. Answer the sums.



8 - 3 = ☐



6 - 2 = ☐



7 - 4 = ☐

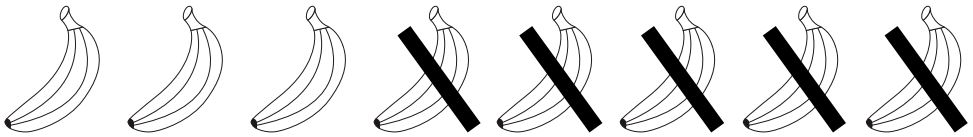
Mathseeds © Blake eLearning

Take away

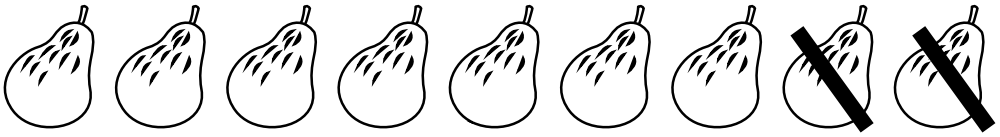
Subtract within 10

1 Fill in the equations.

□ − □ = □



□ − □ = □



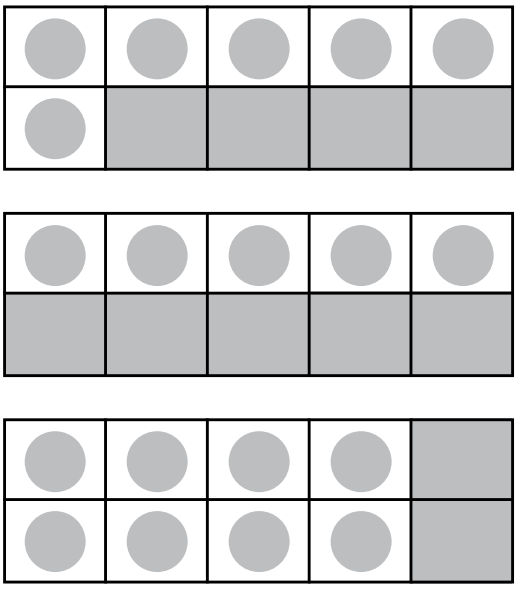
□ − □ = □

2 Match each sum to its answer.

10 - 4

10 - 2

10 - 5

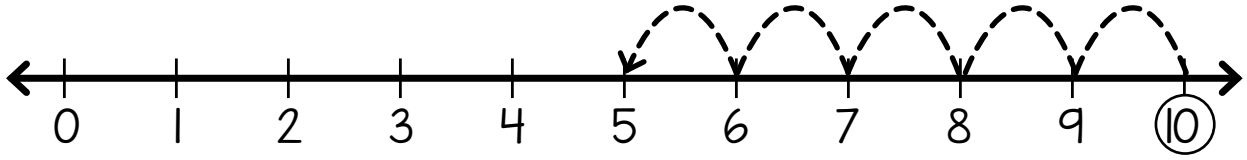


Mathseeds © Blake eLearning

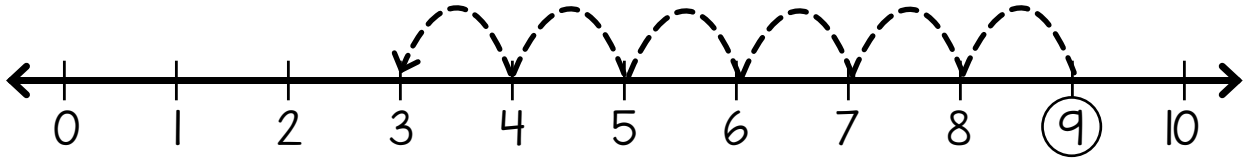
Number lines

Subtract within 10

1 Count back.



$10 - 5 = \square$



$9 - 6 = \square$

2 Match each sum to its number line.

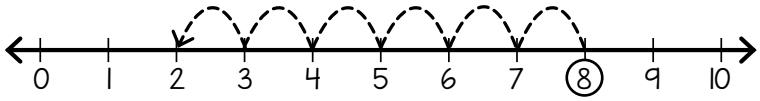
$7 - 3 = 4$

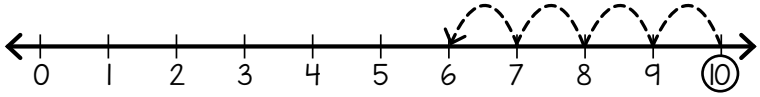
$5 - 2 = 3$

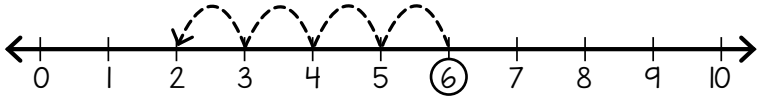
$10 - 4 = 6$

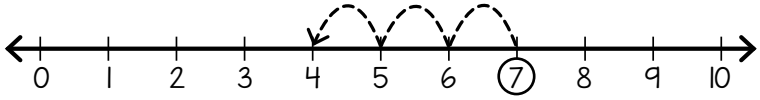
$8 - 6 = 2$

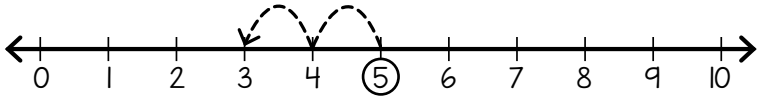
$6 - 4 = 2$











Mathseeds © Blake eLearning

Carrots problem

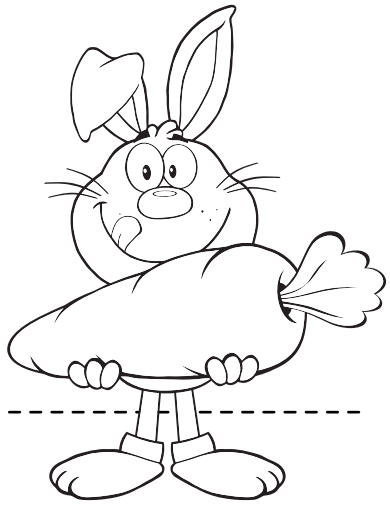
Subtract within 10

1 Read.

Snowy the rabbit dug up 8 carrots.

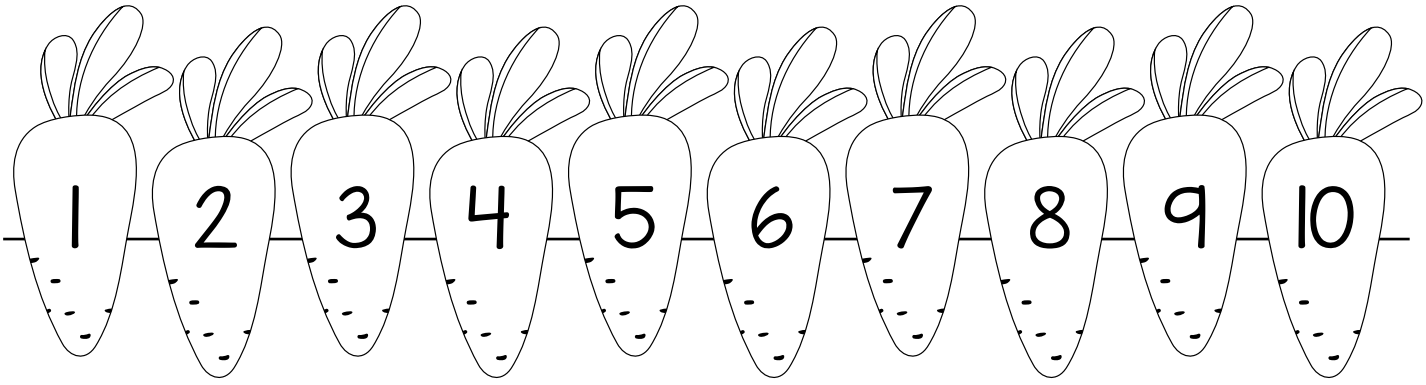
He ate 3.

How many carrots are left?



2 Underline the question. **3** Circle the facts.

4 Complete the number line to take away.



5 How many carrots are left? _____

6 Write it as a number sentence.

☐ − ☐ = ☐

7 How do you know your answer is right?

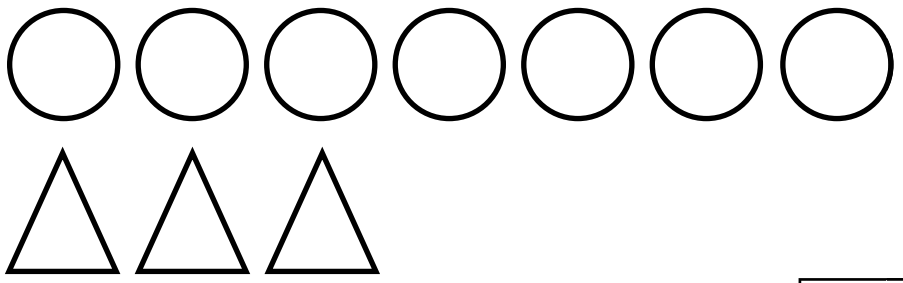
Mathseeds © Blake eLearning

Count the difference

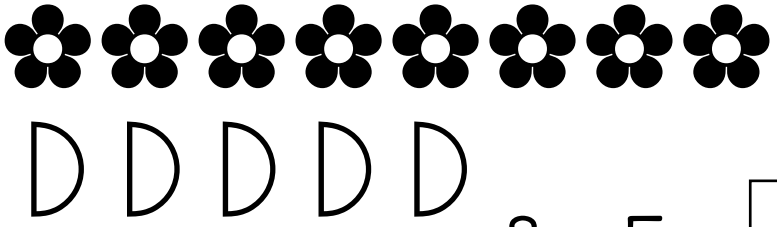
Subtract within 10

Count to find the difference.

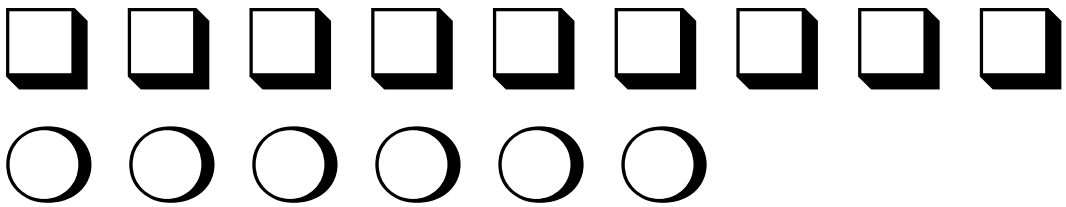
The difference between 6 and 4 is ☐



The difference between 7 and 3 is ☐



8 - 5 = ☐



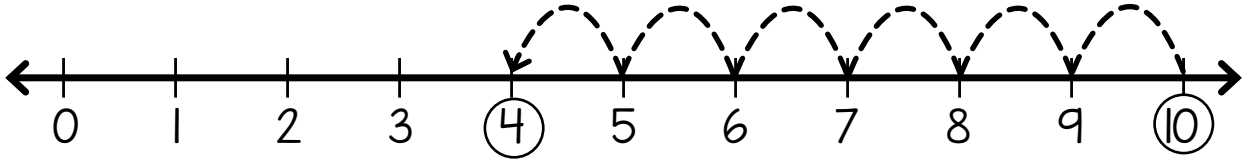
9 - 6 = ☐

Mathseeds © Blake eLearning

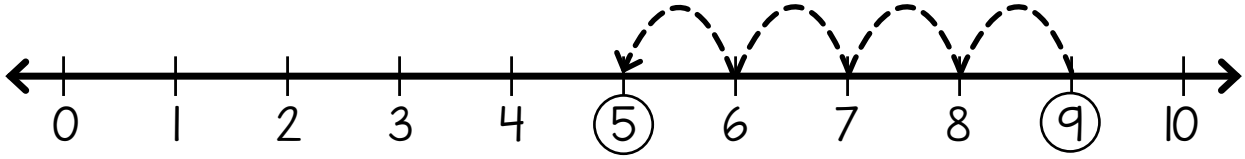
Difference on a number line

Subtract within 10

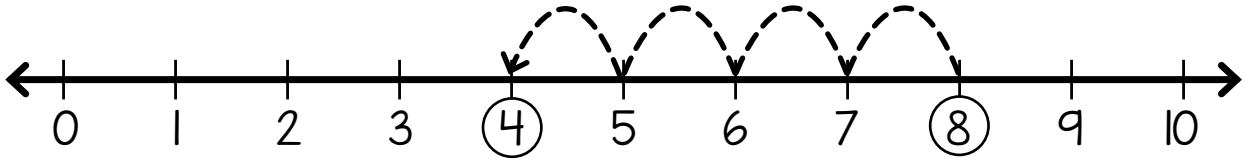
Count the jumps to find the difference.



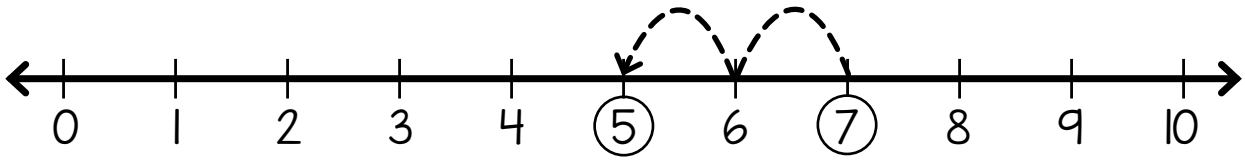
The difference between 10 and 4 is ☐.



The difference between 9 and 5 is ☐.



$8 - 4 =$ ☐



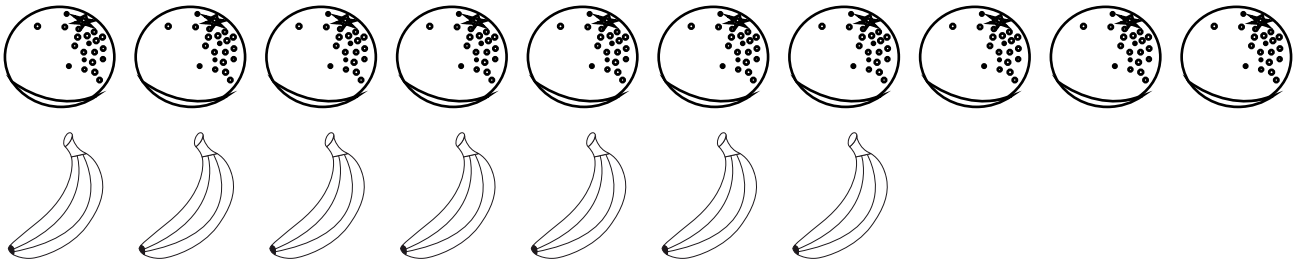
$7 - 2 =$ ☐

Mathseeds © Blake eLearning

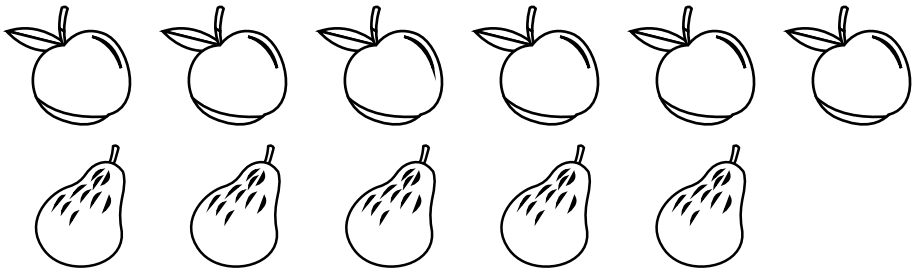
Write the number sentence

Subtract within 10

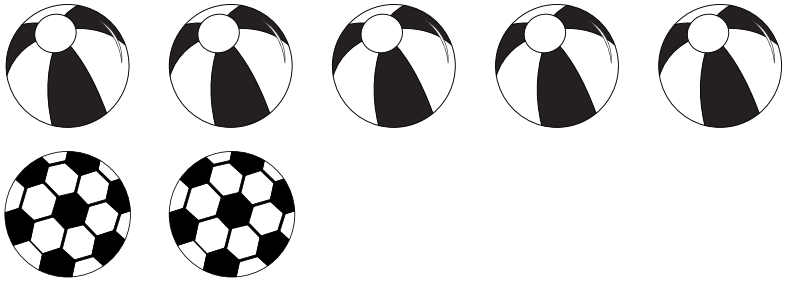
How many more?



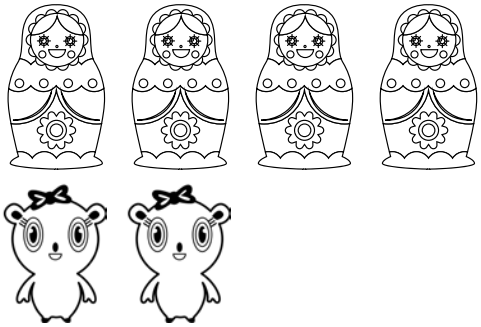
□ – □ = □ more



□ – □ = □ more



□ – □ = □



□ – □ = □

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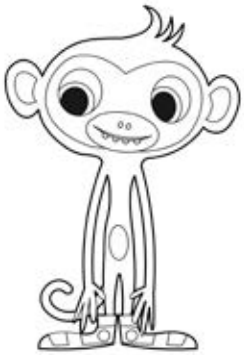
Difference problems

Subtract within 10

Draw the problems and find the answers.

1 Mango has 10 pink marbles. Dizzy has 8 blue marbles.
How many more pink marbles are there?



There are ☐ more pink marbles.

2 Ruby has 9 green bows. Doc has 3 red bows.
How many more green bows are there?

There are ☐ more green bows.

Find the difference problem

Subtract within 10

1 Read.

The difference between Doc's two numbers is 4.

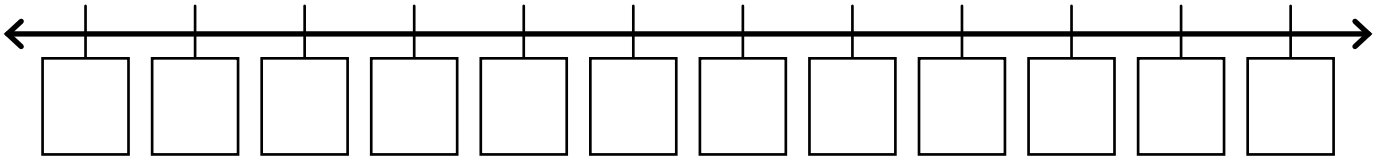
What could his numbers be?

2 Underline the question. **3** Circle the facts.

4 Have a guess! _____ and _____

5 Now check using a number line.
Count to find the difference.

Remember! Try different numbers until your answer is correct.

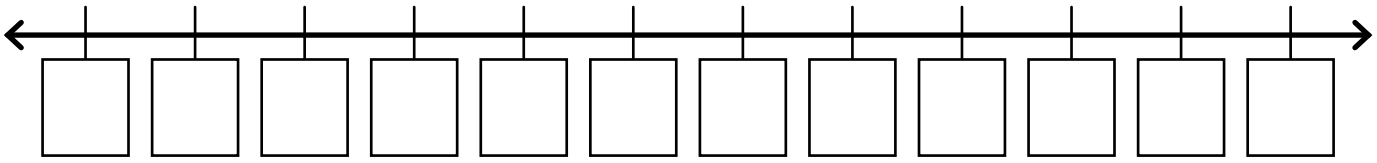


Doc's numbers could be _____ and _____ .

Or _____ and _____ . Or _____ and _____ .

Or _____ and _____ . Or _____ and _____ .

6 Fill this number line with different numbers.



Doc's numbers could be _____ and _____ .

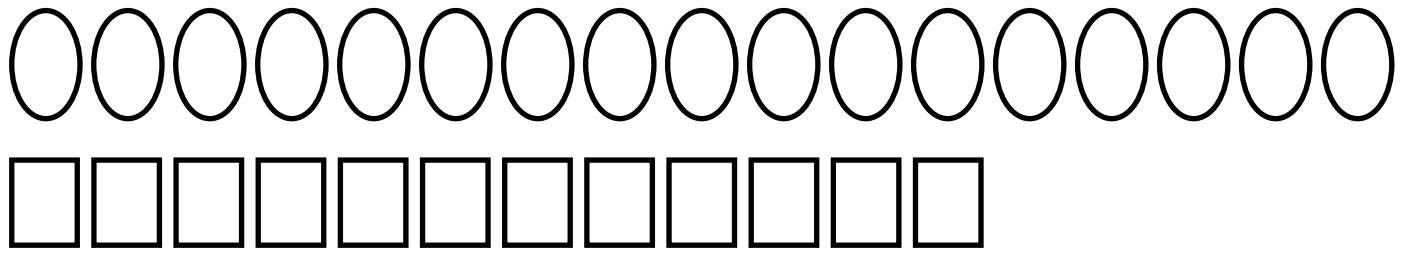
Or _____ and _____ . Or _____ and _____ .

7 Compare your answers with a partner.
Are your answers the same?

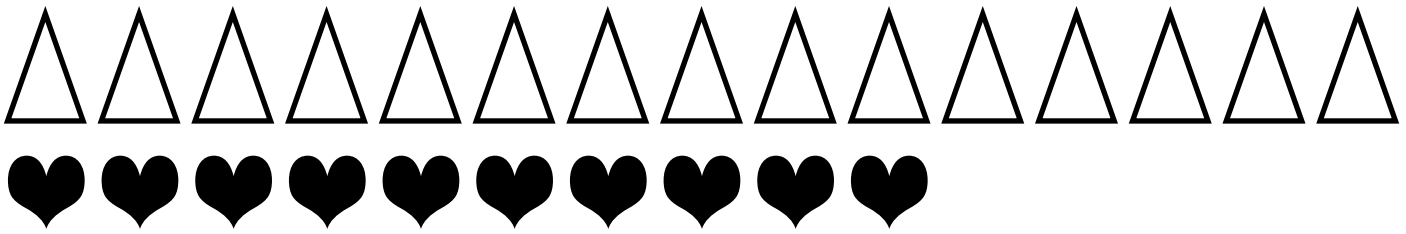
Count the difference

Subtract within 20

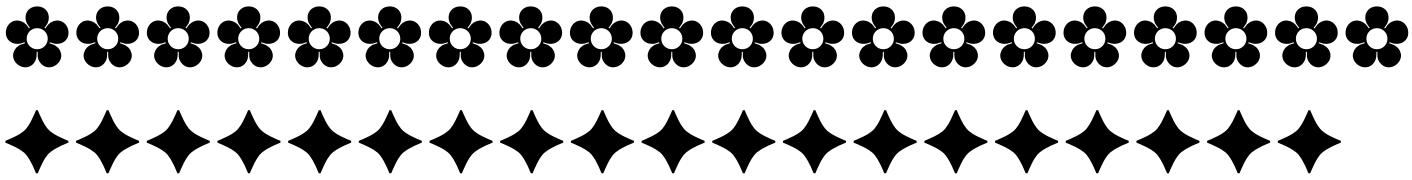
What is the difference?



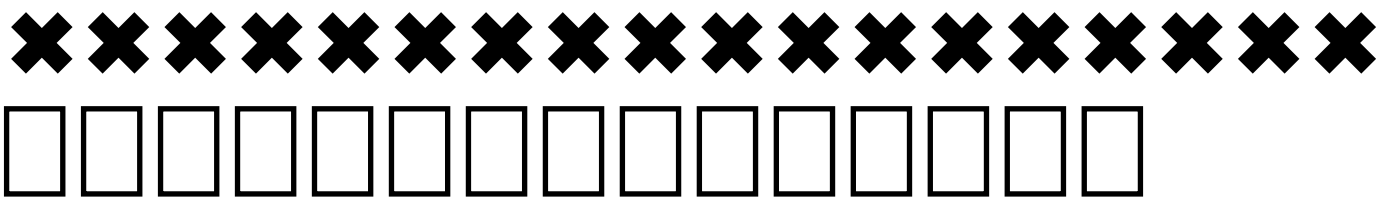
The difference between 17 and 12 is ☐.



The difference between 15 and 10 is ☐.



20 - 19 = ☐



18 - 15 = ☐

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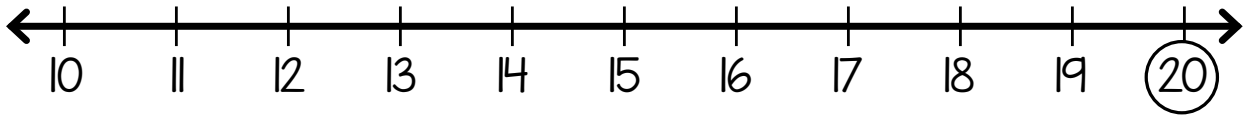
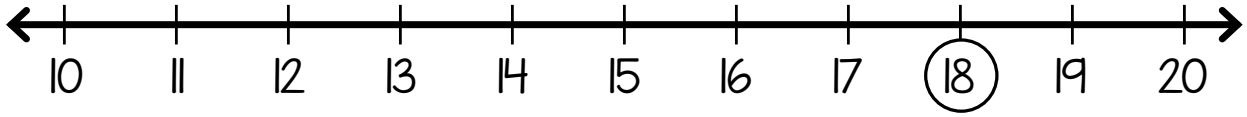
Number line difference

Subtract within 20

1 Jump back to find the difference.

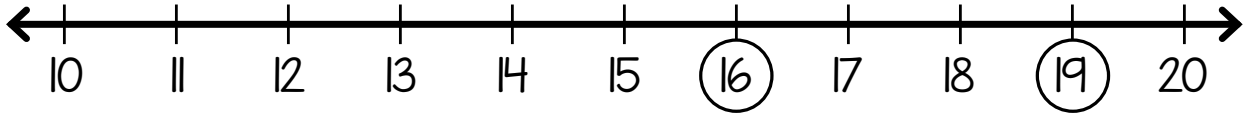


$20 - 4 = \square$

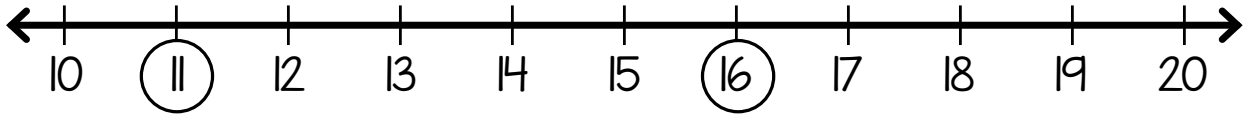


$18 - 6 = \square$

2 Count the spaces to find the difference.



$19 - 16 = \square$

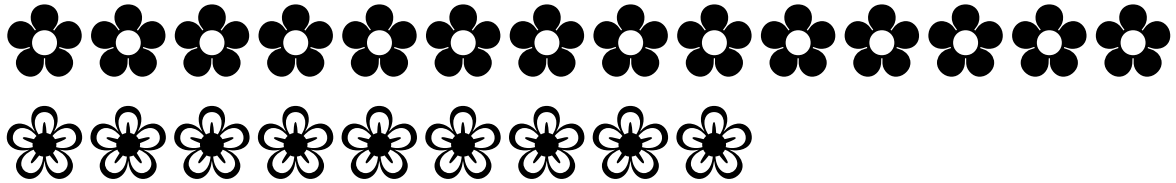


$16 - 11 = \square$

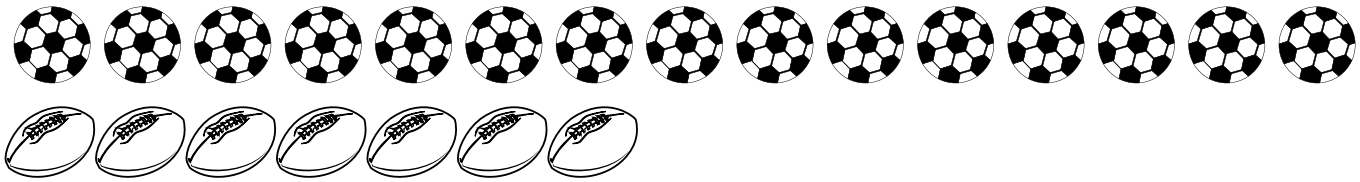
Write the number sentence

Subtract within 20

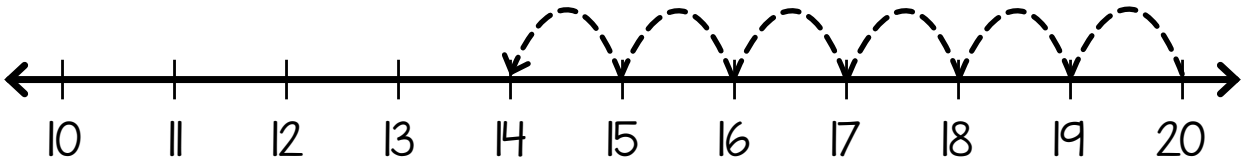
Write the number sentence and find the difference.



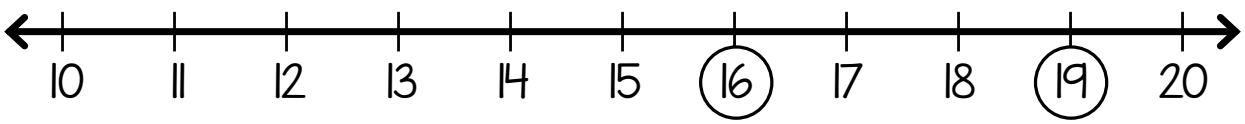
_____



_____



_____



_____

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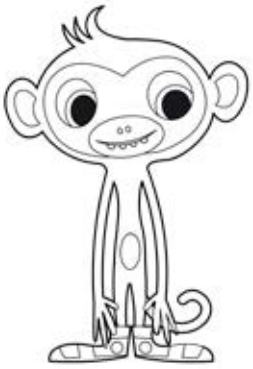
Difference problems

Subtract within 20

Use the number line to find the difference and fill in the sum.

Mango has 17 apples. Ruby has 8 pears.
What is the difference?



Waldo has 19 carrots. Doc has 5 beans.
What is the difference?

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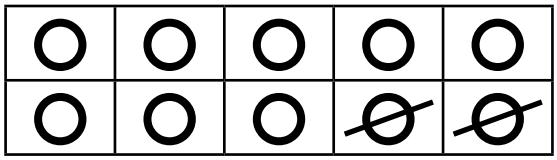
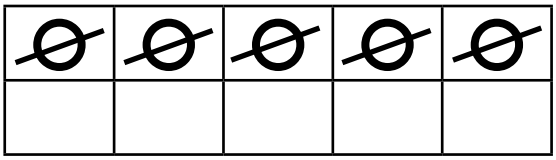
Subtract unknown numbers

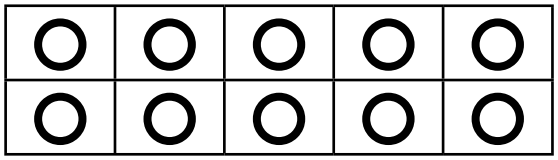
Subtract within 20

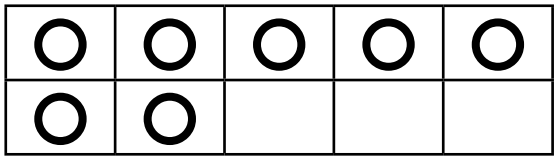
Take away the answer to find the missing number.
The first one is done for you.



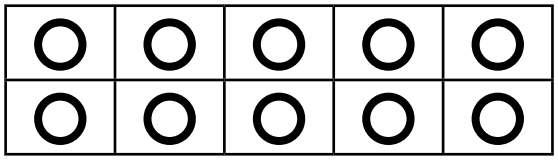


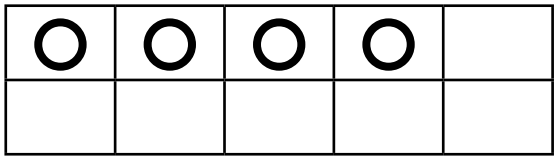
$15 - \boxed{8} = 7$



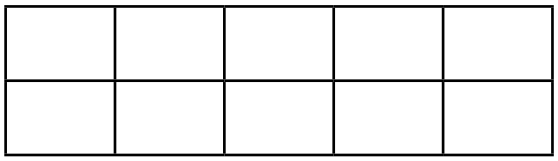


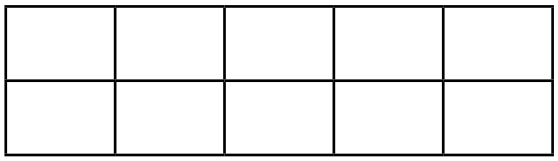
$17 - \square = 6$



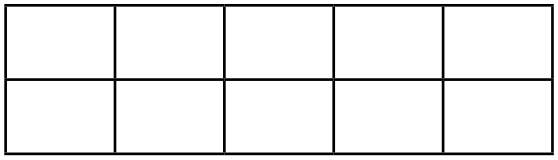


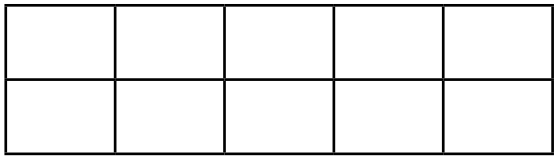
$14 - \square = 9$





$19 - \square = 8$





$16 - \square = 7$

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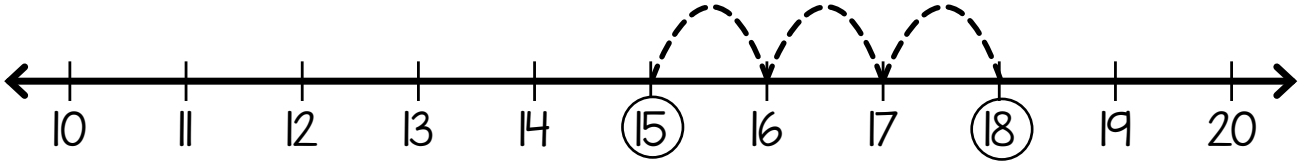
Count the difference

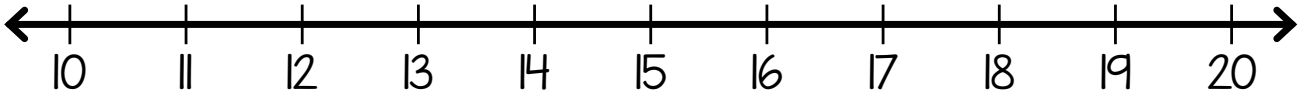
Subtract within 20

Circle the numbers and then count the difference.

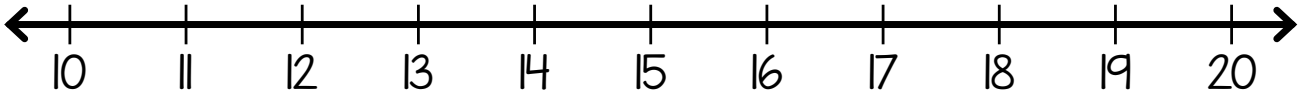
18 - ☐ = 15



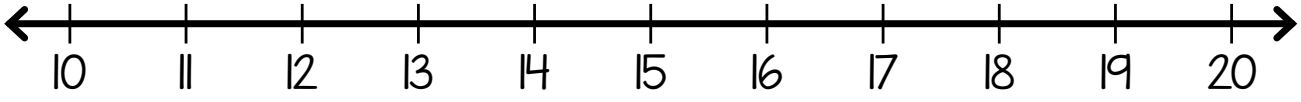
16 - ☐ = 14



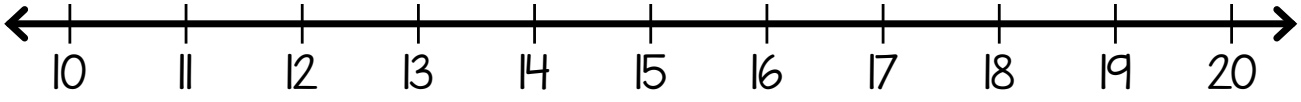
13 - ☐ = 11



20 - ☐ = 12



17 - ☐ = 13

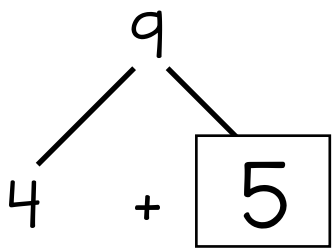


Number mountain

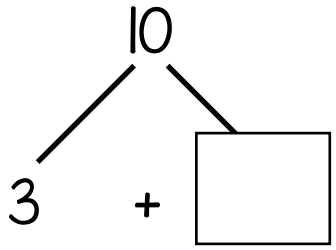
Subtract within 20

Make a number mountain. The first one is done for you.

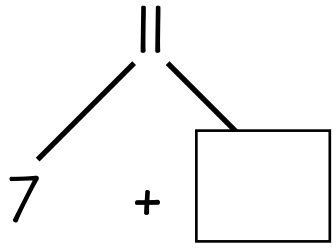
$9 - \square = 4$



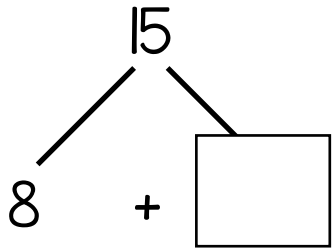
$10 - \square = 3$



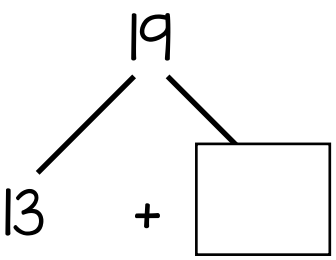
$11 - \square = 7$



$15 - \square = 8$



$19 - \square = 13$



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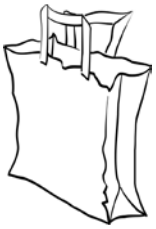
Unknown number problems

Subtract within 20

Write a sum and find the answer.

1 Ruby went shopping with 16 bags. She came home with 11. How many bags did she lose?

_____

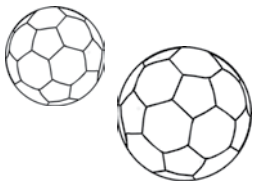


2 Waldo took 13 fish cakes to the picnic. He ate some on the way and now has 7 left. How many did he eat?

_____

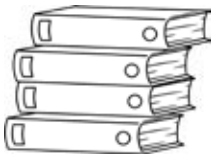
3 Mango put 18 balls in a bag. It had a hole and now only 7 balls are in the bag. How many fell out?

_____



4 Doc had 20 books. He gave some to his friends and now he has 14 left. How many did he give away?

_____



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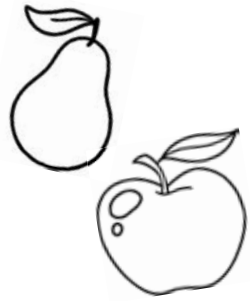
Apples and pears problem

Subtract within 20



1 Read.

Mango has some apples. Ruby has some pears. The difference in number is 6. How many apples and how many pears are there?

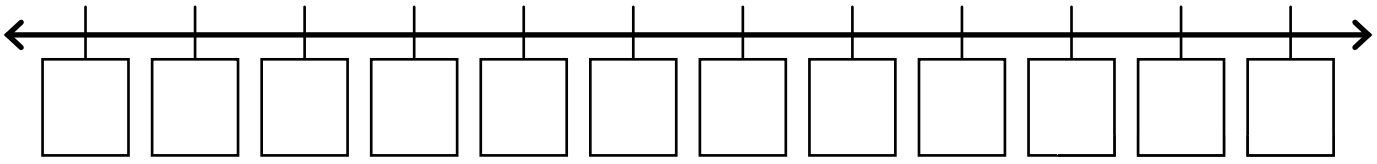
2 Underline the question. **3** Circle the facts.

4 Have a guess!

_____ apples and _____ pears

5 Now check using a number line.

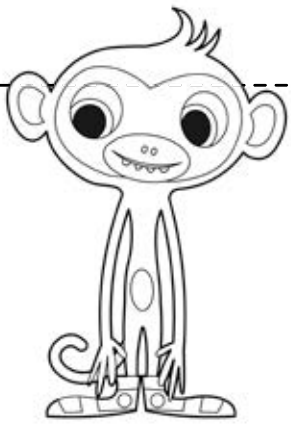
Remember! Try different numbers until your answer is correct.



There could be _____ apples and _____ pears.

6 Write it as a number sentence.

$\square - \square = 6$



7 Are there any other answers to this problem? Share with a partner. Did you get different answers? Talk about why.