

Mathseeds Add and Subtract to 20 Year 1 Student Book

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Publisher: Katy Pike Written by Megan Smith

Design and layout by the Modern Art Production Group

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In this book



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

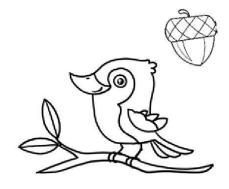
Each online lesson begins by introducing and modelling a mathematical concept. The child then completes a wide range of activities where they practise the new skill. These activities present the content in many different ways so that children learn to use and apply each new skill in a variety of situations.

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:

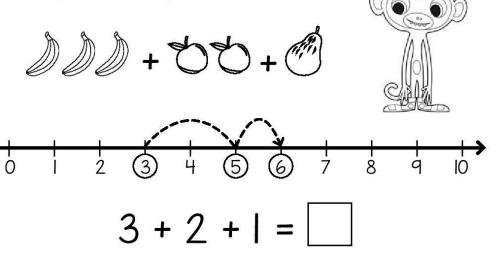
- read, write and interpret mathematical statements involving addition (+),
 subtraction (-) and equals (=) signs
- · represent and use number bonds and related subtraction facts within 20
- · add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve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



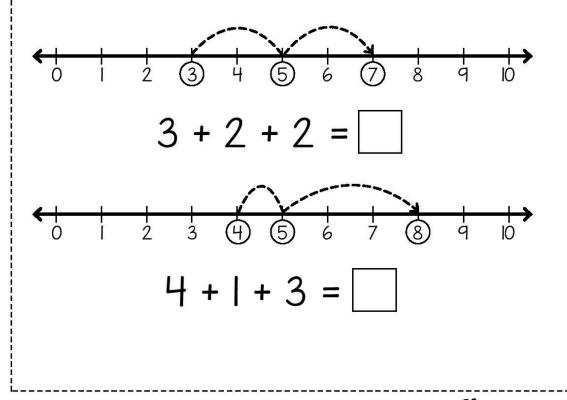
Count on to add

Add to 10

Add Mango's fruit together.



2 Find the answers.

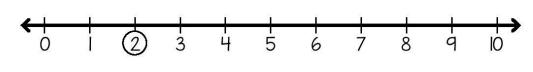


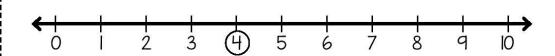
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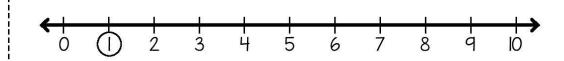
Count on a number line

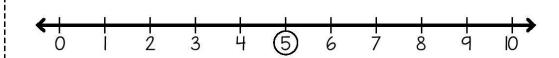
Add to 10

Use the number lines to find the answers.









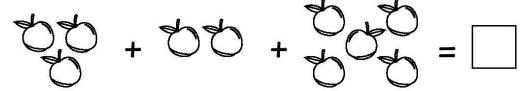
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Add 3 numbers

Add to 10

Count and add.



2 Find the answers.

$$1+5+2=$$
 $5+3+1=$ $2+4+2=$ $4+5+1=$ $3+2+4=$ $2+5+2=$ $=$

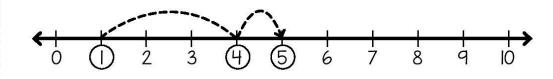
3 Find the missing numbers.

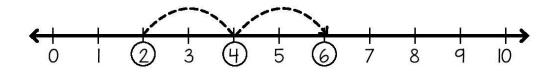
$$3 + 3 + \square = 7$$
 $5 + 2 + \square = 10$
 $1 + 1 + \square = 5$ $4 + 2 + \square = 8$

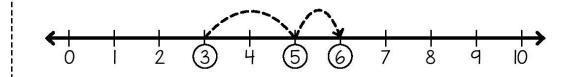
Write the sum

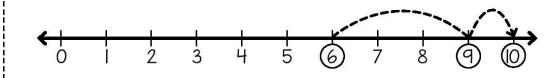
Add to 10

Fill in the number sentences.







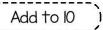


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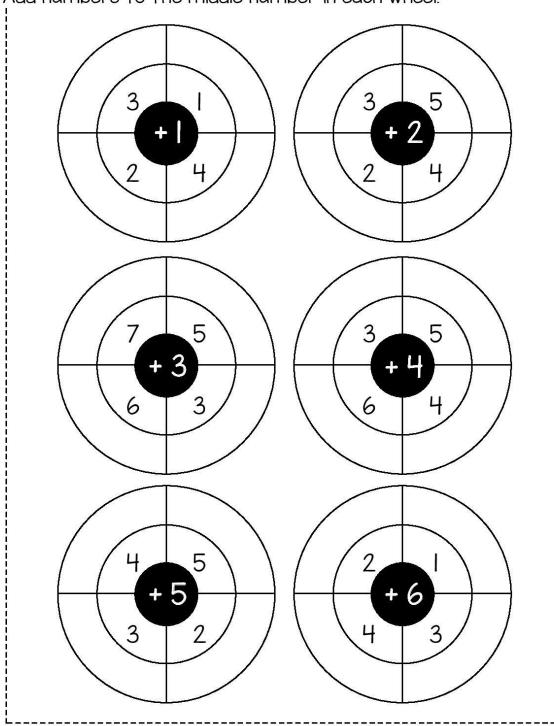
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Fluent addition to 10



Add numbers to the middle number in each wheel.



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Toy cars problem

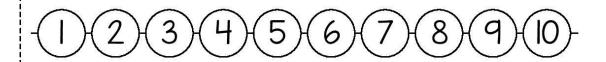
Add to 10

Read.

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

How many cars altogether?

- 2 <u>Underline</u> the question. 3 Circle the facts.
- 4 Complete the number line to add.



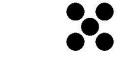
- 5 How many toy cars altogether? _____
- 6 Solve the same problem in a different way.

7 Which strategy have you used here?

Add to 20

Add to 20

Count on from the first number. Find the answer.









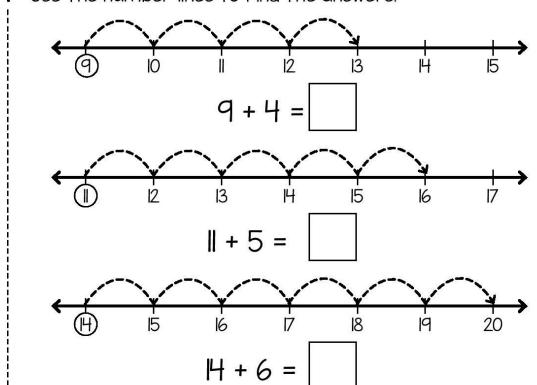


2 Count on from the larger number.

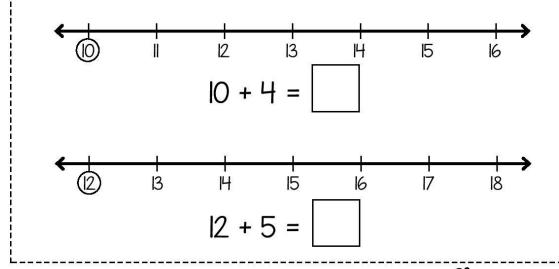
Number line addition

Add to 20

Use the number lines to find the answers.



2 Find the answers.



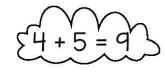
Number sentences

Add to 20

Make these sums true.

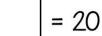
2 Colour the true sums. Cross out the false sums.

$$2+5=9$$



$$\begin{cases} 1 + 5 = 17 \end{cases}$$

3 Write three sums which equal the same amount.



Equal sums

Add to 20

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

2 Match the equal sums.

$$(1+9=)$$

$$(12 + 5 =)$$

$$(10 + 9 =$$

$$= 10 + 7$$

$$(7 + 7 =$$

$$(=6+4)$$



3 Make these equal sums true.

The equals sign

Add to 20

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

10 5 15

6 3 3

II 2 I3

10 2 8

16 1 1 1

5 4

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















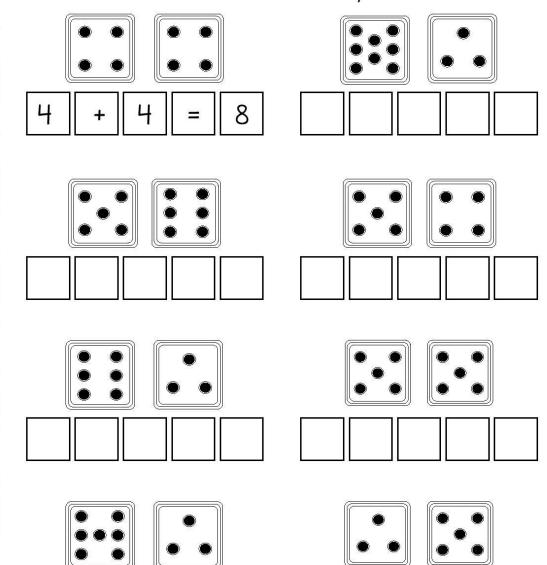






Writing sums

Write the sums. The first is done for you.



2 Draw lines to join the equal sums.

Different but the same problem (Add to 20)

I Read.

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



- 2 <u>Underline</u> the question. 3 Circle the facts.
- 4 Solve it!

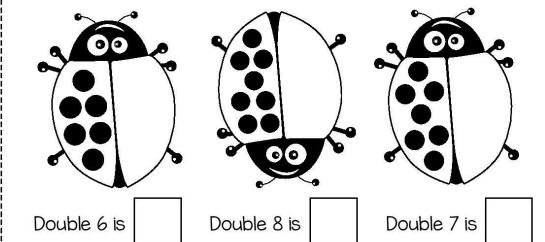
5 Which strategy did you use to solve the problem?

6 Find more addition equations with the same answer.

Counting doubles

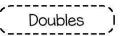
Doubles

Draw matching spots. Write the answers.

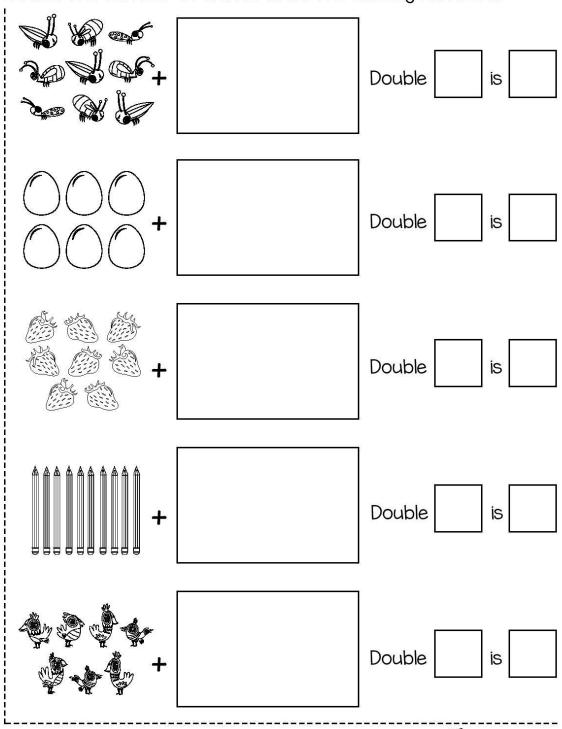


2 Write the answers.

Draw doubles



Double the number of items. Write the missing numbers.



Adding doubles

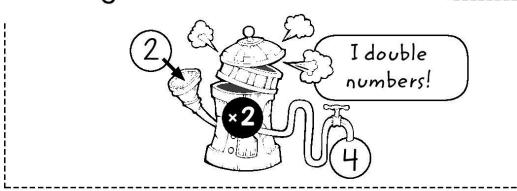
Doubles

Write the missing numbers.

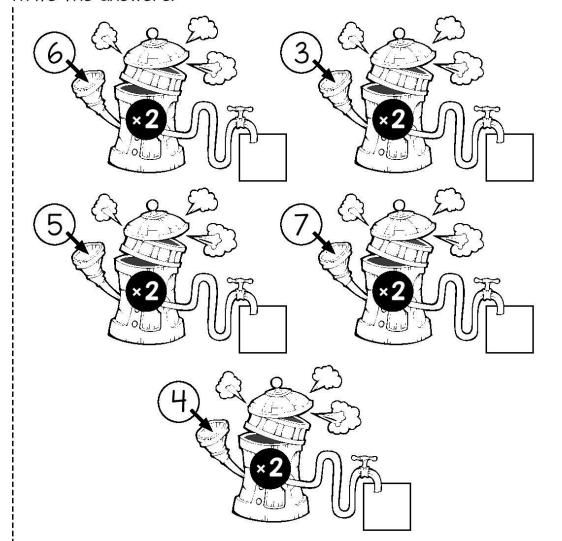


Doubling





Write the answers.

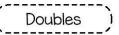


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Double marbles problem



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 <u>Underline</u> the question. 3 Circle the facts.
- 4 How can you solve it?

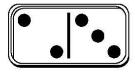
5	How many marbles do they each have?			
	Ruby Dizzy Doc Mango			
6 - -	Who has the most marbles?			
7	Check with a partner. Tell each other which strategy you used to solve the problem.			

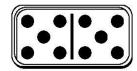
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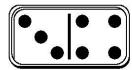
Near doubles

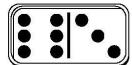
Doubles

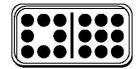
Colour the near doubles dominoes.

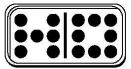












2 Match each sum to its nearest double.

$$9 + 10 =$$

$$6 + 7 =$$

$$(5+5)$$

$$3+3$$

$$7+7$$

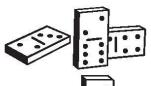
$$7 + 8 =$$

3 Complete.

$$2 + 3 = 2 + 2 + 1$$







$$7 + 8 = 7 + 7 + 1$$



$$5+6 = 5+5+1$$



$$9 + 10$$



Adding near doubles

Doubles

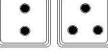
Add Ruby's near double dice rolls.











































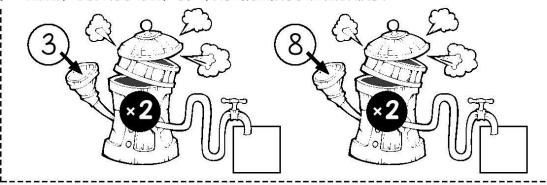




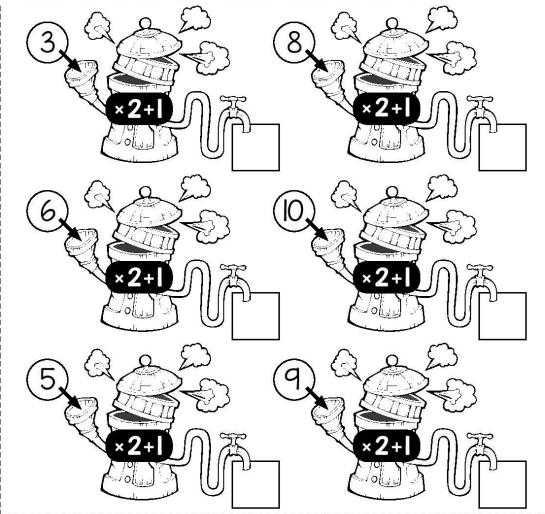
Near doubling

Doubles

What comes out of the doubles machine?



2 What comes out of the near doubles machine?

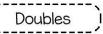


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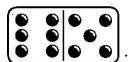
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Domino dots problem



I Read.

Doc picked this domino



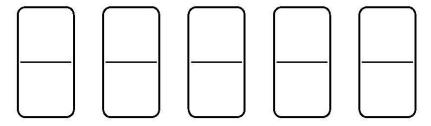
He looked at the dots and quickly found the total. How did Doc find the answer?



- 2 Underline the questions. 3 Circle the facts.
- Use a <u>near doubles strategy</u> 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?

0000

AR SR SA

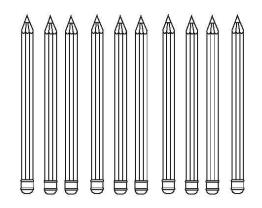
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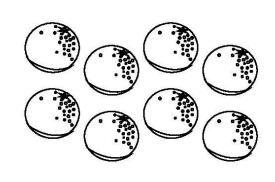
Cover 4 pencils.

10 - 4 =

Cover I orange.

8 - I =

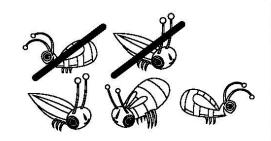


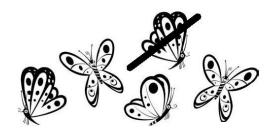


Take away

(Subtract within 10)

Find the answers.

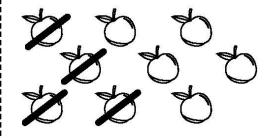












Number sentences

Subtract within 10

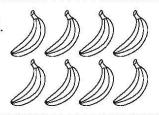
Fill in the number sentences.

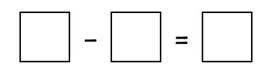
Take away I.



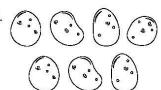


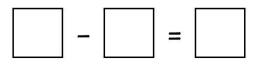
Take away 2.





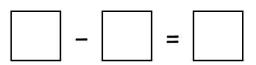
Take away 3.





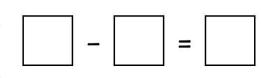
Take away 4.





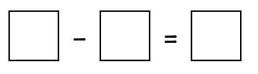
Take away 5.





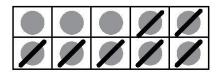
Take away 6.





Subtract

I Write the sums.



2 Draw.



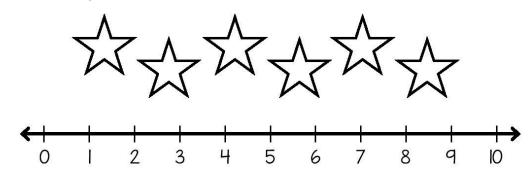
Take away 3.

7 0

Take away 2.

Count back

How many? Circle the number.

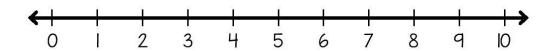


Cross out 3.

Jump back to show how many are left.

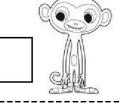
2 How many? Circle the number.





Cross out 5.

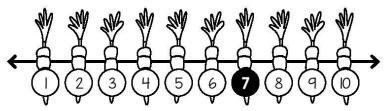
Jump back to show how many are left.



3 Write a number sentence for each take away above.

Number line subtraction

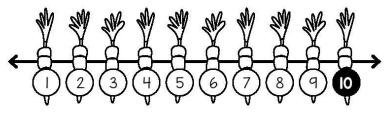
Hop back 3 places.



The number



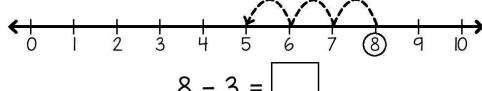
Hop back 8 places.

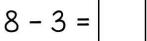


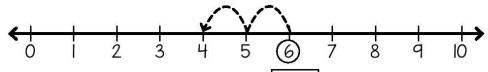
The number

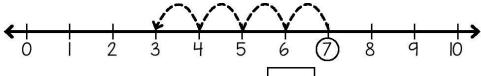


Trace the hops. Answer the sums.

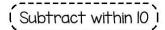




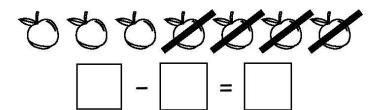


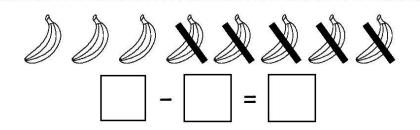


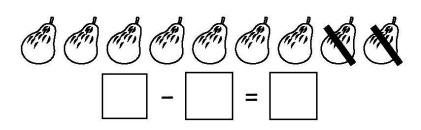
Take away



Fill in the equations.







2 Match each sum to its answer.

(10 - 4)



(10 - 2)



(10 - 5)

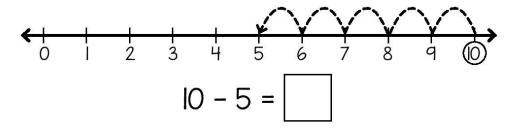


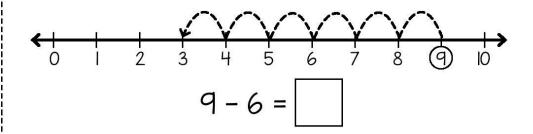


Number lines

Subtract within 10

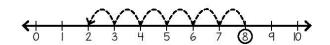
Count back.



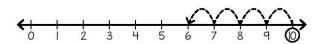


2 Match each sum to its number line.

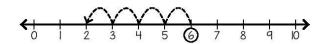
$$7 - 3 = 4$$



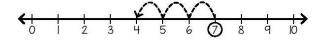
$$(5-2=3)$$

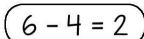


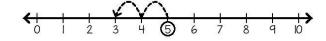
$$10 - 4 = 6$$



$$8 - 6 = 2$$







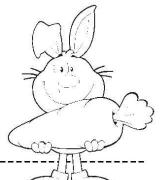
Carrots problem

Subtract within 10

Read.

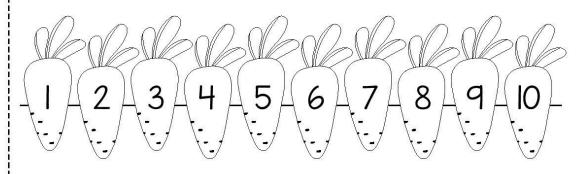
Snowy the rabbit dug up 8 carrots. He ate 3.

How many carrots are left?



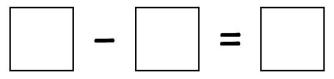
2 <u>Underline</u> the question. 3 Circle the facts.

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?

Count the difference

Subtract within 10

Count to find the difference.



The difference between 6 and 4 is



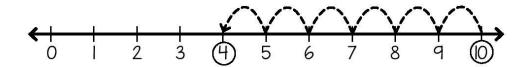




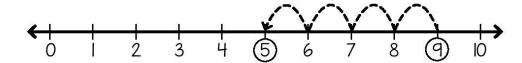
DDDDD

Difference on a number line (Subtract within 10)

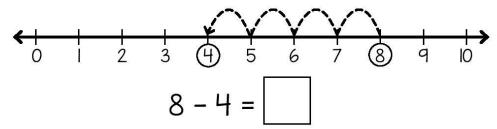
Count the jumps to find the difference.

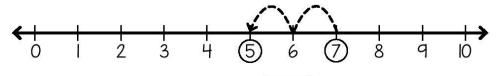


The difference between 10 and 4 is



The difference between 9 and 5 is



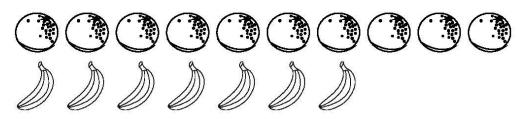


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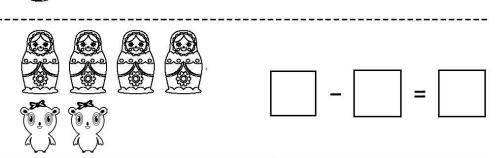
33

Write the number sentence (Subtract within 10)

How many more?





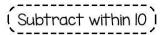


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Difference problems



Draw the problems and find the answers.

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.



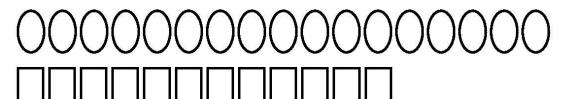
35

Find the difference problem (Subtract within 10) Read. The difference between Doc's two numbers is 4. What could his numbers be? 2 <u>Underline</u> the question. 3 Circle the facts. 4 Have a guess! ____ and ____ 5 Now check using a number line. Count to find the difference. Doc's numbers could be _____ and _____. Or _____ and ____ . Or ____ and ____ . Or _____ and _____. Or ____ and _____. Fill this number line with different numbers. Doc's numbers could be _____ and ____. Or _____ and _____. Or ____ and _____. Compare your answers with a partner. Are your answers the same? Add and Subtract to 20 • Year 1 • Topic 4 36

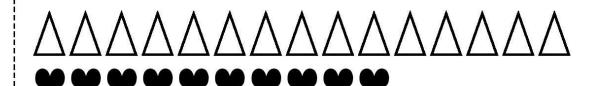
Count the difference

Subtract within 20

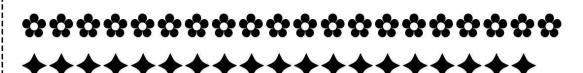
What is the difference?



The difference between 17 and 12 is



The difference between 15 and 10 is

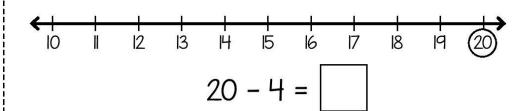




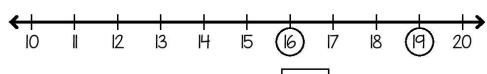
Number line difference

Subtract within 20

Jump back to find the difference.



2 Count the spaces to find the difference.



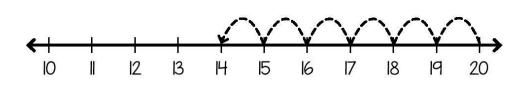
(I) 12 13 14 15 (6) 17 18 19 20

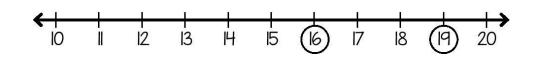
Write the number sentence (Subtract within 20)

Write the number sentence and find the difference.









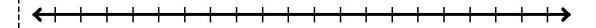
Add and Subtract to 20 • Year 1 • Topic 5

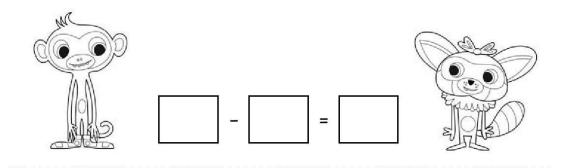
Difference problems

(Subtract within 20)

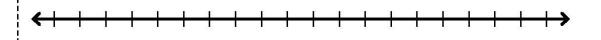
Use the number line to find the difference and fill in the sum.

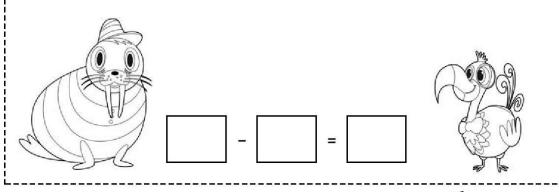
Mango has 17 apples. Ruby has 8 pears. What is the difference?





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





Add and Subtract to 20 • Year 1 • Topic 5

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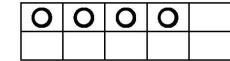
Subtract unknown numbers (Subtract within 20)

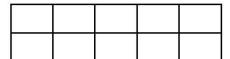
Take away the answer to find the missing number. The first one is done for you.

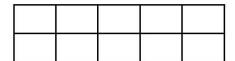
0	0	0	0	0
0	0	0	Ø	Ø

Ø	Ø	Ø	Ø	Ø





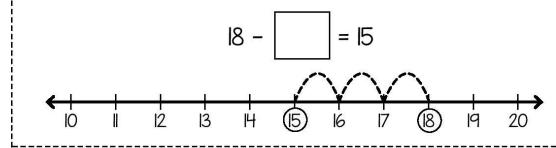


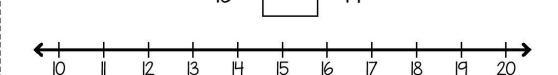


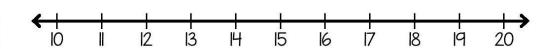
Count the difference

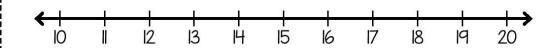
Subtract within 20

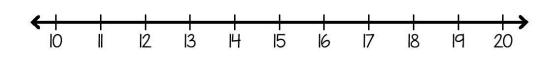
Circle the numbers and then count the difference.









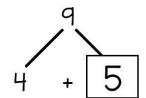


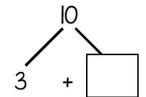
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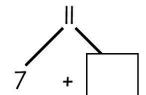
42

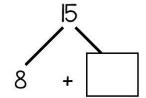
Number mountain

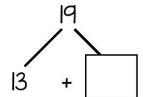
Make a number mountain. The first one is done for you.











Unknown number problems (Subtract within 20)

Write a sum and find the answer.

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



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 IH left. How many did he give away?



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Apples and pears problem (Subtract within 20)

Read.

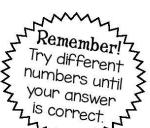
Mango has some apples. Ruby has some pears. The difference in number is 6. How many apples and how many pears are there?

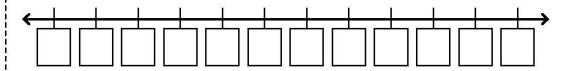


4 Have a guess!

___ apples and ____ pears

5 Now check using a number line.

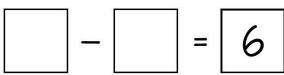




There could be ____ apples and ___ pears.



6 Write it as a number sentence.





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