Maths for year 1 and 2

This week we are looking at addition and subtraction and this work is suitable for year 1 and 2.

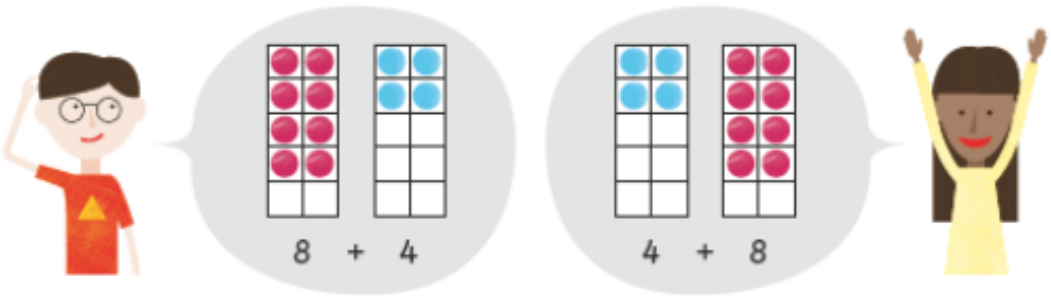
Lesson 1

This lesson looks at addition and subtraction facts, otherwise known as number sentence fact families.

To begin this lesson, tell pupils your friend has made another silly claim. She said that 8 and 4 is the same as 4 and 8. How is this possible? Can you show me? A suitable approach would be to use cubes of 2 different colours along with number bond diagrams.

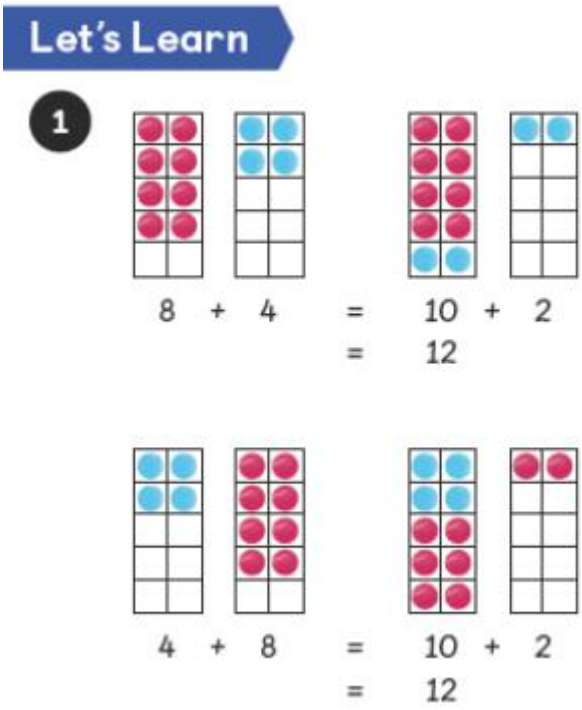
Use the In Focus task to show pupils that 8 add 4 and 4 add 8 will always give you the same total. Then make sure you have 4 cubes of one colour and 8 of another. Using ten frames, show the class that 4 add 8 is 12 and that 8 add 4 is also 12. Refer them to the Let's Learn 2 number bond diagrams to show 8 + 4 and 4 + 8. Then ask questions such as, 'What would 12 – 4 and 12 – 8 give?' Use this to revise the family of addition and subtraction facts.

In Focus

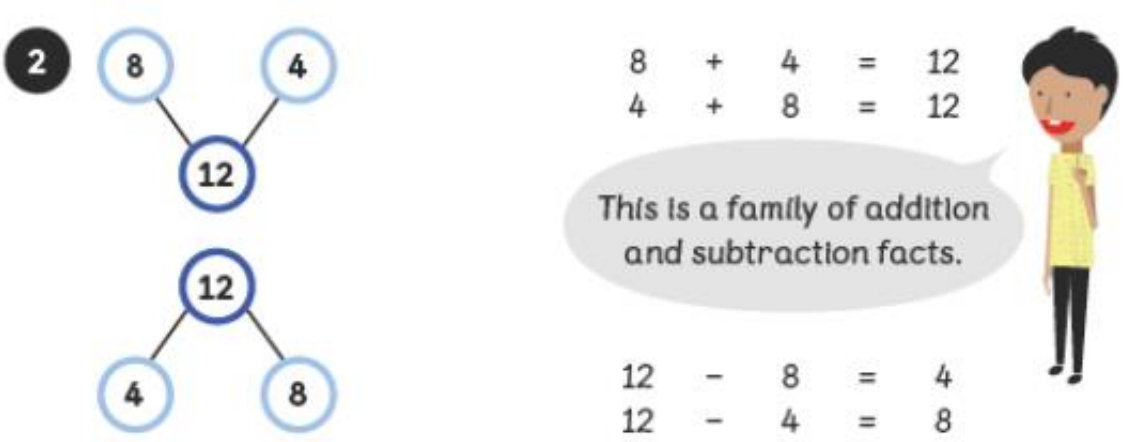


Is 8 + 4 the same as 4 + 8?

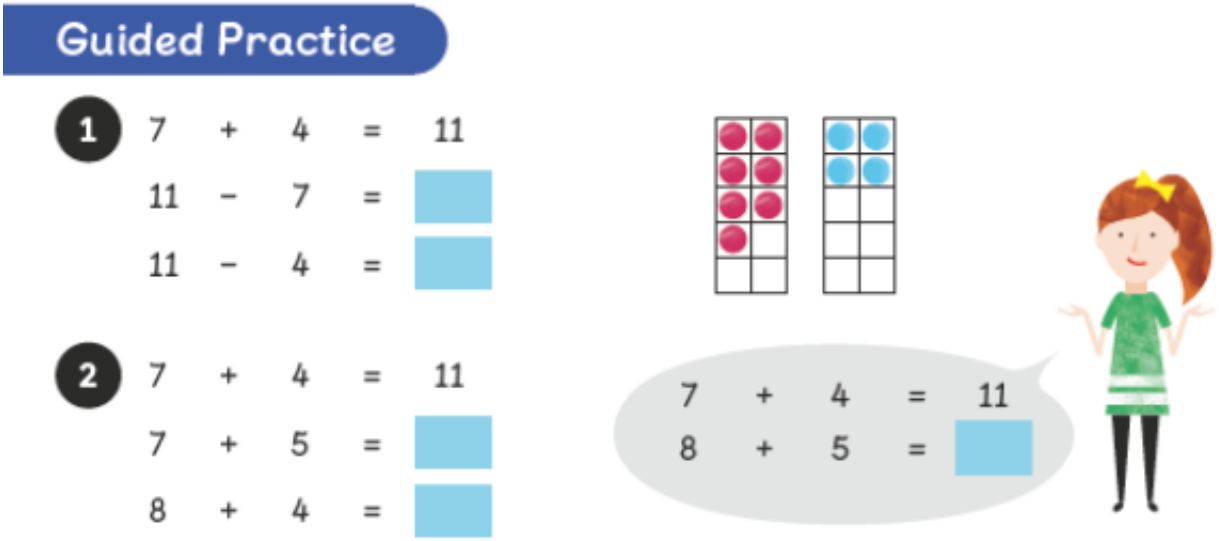
This is what you may have discussed during the In Focus task:



The second part of this lesson deals with subtraction and its relationship to addition. Use a similar approach and get pupils to use ten frames and counters. Also ask them about different arrangements on the ten frames. How can we show 11 (7 and 4, 10 and 1, 8 and 3)? Which is the best way when doing the operation today and why?



During Guided Practice, pupils are reinforcing the family of addition and subtraction facts approach, using all of the numbers in the fact family to complete the number sentences.



Addition and Subtraction Facts

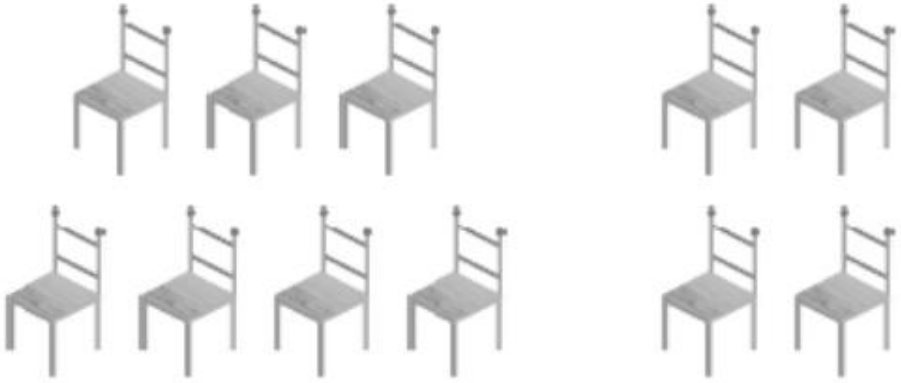
1 Write the missing numbers.

Example

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

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

(a)



$7 + 4 = \square$ $\qquad$ $\square - 7 = 4$

$4 + 7 = \square$ $\qquad$ $\square - 4 = 7$

(b)

6 + ☐ = ☐ ☐ − 6 = ☐

☐ + 6 = ☐ ☐ − ☐ = 6

(c)

☐ + 7 = ☐ ☐ − ☐ = 7

7 + ☐ = ☐ ☐ − 7 = ☐

(d)

☐ + ☐ = ☐ ☐ − ☐ = ☐

☐ + ☐ = ☐ ☐ − ☐ = ☐

Answers

Addition and Subtraction Facts

1 Write the missing numbers.

Example

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

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

(a)

$7 + 4 = \boxed{11}$ $\quad \boxed{11} - 7 = 4$

$4 + 7 = \boxed{11}$ $\quad \boxed{11} - 4 = 7$

(b)

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

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

(c)

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

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

(d)

$\boxed{9} + \boxed{3} = \boxed{12}$ $\quad \boxed{12} - \boxed{9} = \boxed{3}$

$\boxed{3} + \boxed{9} = \boxed{12}$ $\quad \boxed{12} - \boxed{3} = \boxed{9}$

Mind Workout

Complete the equations.

(a) 14 + ☐ = 19

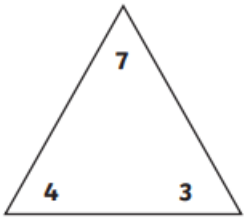
(b) 17 − ☐ = 6

(c) ☐ + 9 = 15

(d) ☐ − 9 = 8

Addition and Subtraction Fact Families to 10

For each set of numbers, write four different addition and subtraction facts.

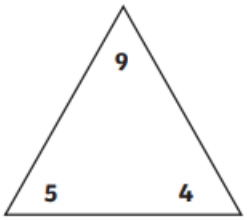


□ + □ = □

□ + □ = □

□ - □ = □

□ - □ = □



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□ - □ = □

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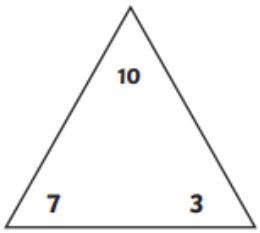

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□ - □ = □

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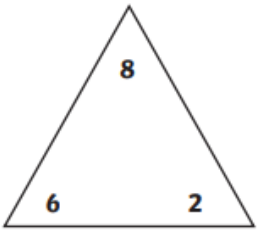


□ + □ = □

□ + □ = □

□ - □ = □

□ - □ = □

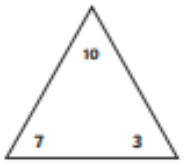
Answers

Addition and Subtraction Fact Families to 10 Answers

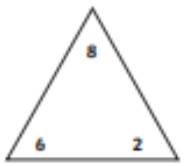
For each set of numbers, write four different addition and subtraction facts.

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

5	+	4	=	9
4	+	5	=	9
9	-	4	=	5
9	-	5	=	4



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



6	+	2	=	8
2	+	6	=	8
8	-	6	=	2
8	-	2	=	6

Practise your doubles

(a) 1 + 1 = ☐

(b) 2 + 2 = ☐

(c) 3 + 3 = ☐

(d) 4 + 4 = ☐

(e) 5 + 5 = ☐

(f) 6 + 6 = ☐

(g) 7 + 7 = ☐

(h) 8 + 8 = ☐

(i) 9 + 9 = ☐

(j) 10 + 10 = ☐

How can you use 7 + 7 to find 7 + 8 and 7 + 6?

Lesson 2

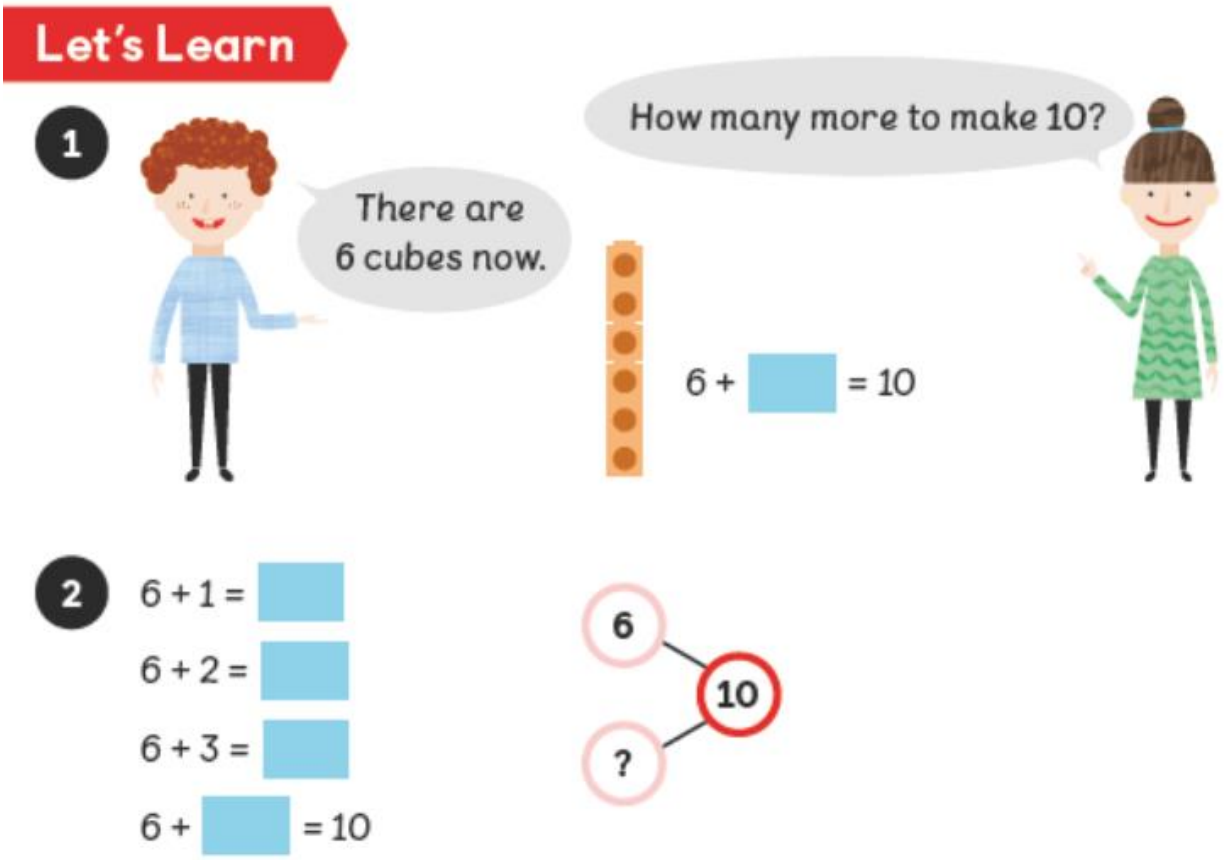
To begin this lesson, ask pupils to work in pairs and give them 6 cubes to work with. Ask them how many more cubes they need to make a stack of 10. Prompt them to tell you what information they know and what information they need to discover. Introduce a number bond diagram and ask them if this is helpful.

Pupils might count on from 6 to see how many more are needed to get 10. The alternative method is guess-and-check, which you can introduce by asking them to add one more cube until they reach 10. You could arrange this information in a Carroll diagram or by listing 6 + 1, 6 + 2, and so on.

In Focus

How many more cubes do they need to make a stack of 10 cubes?

This is how you may have thought it out:



During Guided Practice, show pupils how to find the answer to question 1 using the cubes. Then represent the 6 cubes on the board from which you take away 2. The number sentence should follow at the end to tie up the process. For the second and third questions, it is important that pupils recognise the commutative property, e.g. 9 – 2 = 7, so 9 – 7 = 2. This is a good opportunity to link this idea to the number bond diagram. Ask them to draw the number bond diagram for question 3 to find the answers to the blanks in the number sentences.

Guided Practice

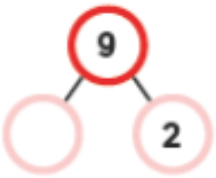
1 How many cubes need to be taken away so that the stack has 4 cubes?

6 − ☐ = 4

2 9 − 2 = ☐

9 − 3 = ☐

9 − ☐ = 2

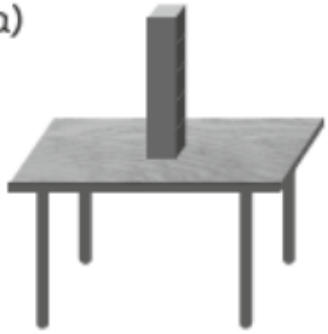


3 10 + ☐ = 12

10 − ☐ = 2

1 Write the missing numbers.

(a)



How many cubes need to be added to make a stack of 9 cubes?

$5 + \square = 9$

(b)

How many cubes need to be added to make a stack of 7 cubes?

$2 + \square = 7$

(c)

How many cubes need to be taken away to make a stack of 3 cubes?

$7 - \square = 3$

2 Write the missing numbers.

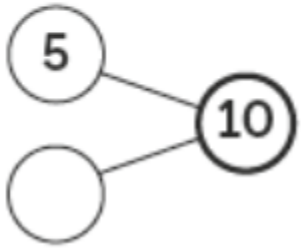
(a) $5 + 1 = \square$

$5 + 2 = \square$

$5 + 3 = \square$

$5 + 4 = \square$

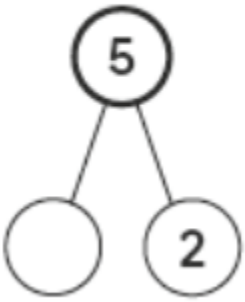
$5 + \square = 10$



(b) $5 - 1 = \square$

$5 - 3 = \square$

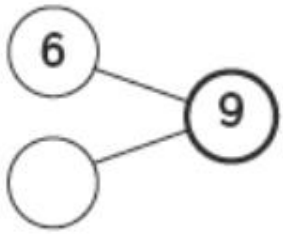
$5 - \square = 3$



(c) $9 - 5 = \square$

$9 - 6 = \square$

$9 - \square = 6$



3 Write the missing numbers.

(a) $10 + 3 = \square$

$10 - \square = 3$

(b) $10 + \square = 18$

$10 - \square = 8$

answers

Solving Word Problems

1 Write the missing numbers.

(a)

How many cubes need to be added to make a stack of 9 cubes?

5 + 4 = 9

(b)

How many cubes need to be added to make a stack of 7 cubes?

2 + 5 = 7

(c)

How many cubes need to be taken away to make a stack of 3 cubes?

7 − 4 = 3

2 Write the missing numbers.

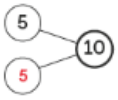
(a) 5 + 1 = 6

5 + 2 = 7

5 + 3 = 8

5 + 4 = 9

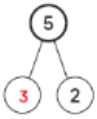
5 + 5 = 10



(b) 5 − 1 = 4

5 − 3 = 2

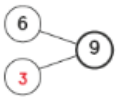
5 − 2 = 3



(c) 9 − 5 = 4

9 − 6 = 3

9 − 3 = 6



3 Write the missing numbers.

(a) 10 + 3 = 13

10 − 7 = 3

(b) 10 + 8 = 18

10 − 2 = 8

Lesson 3

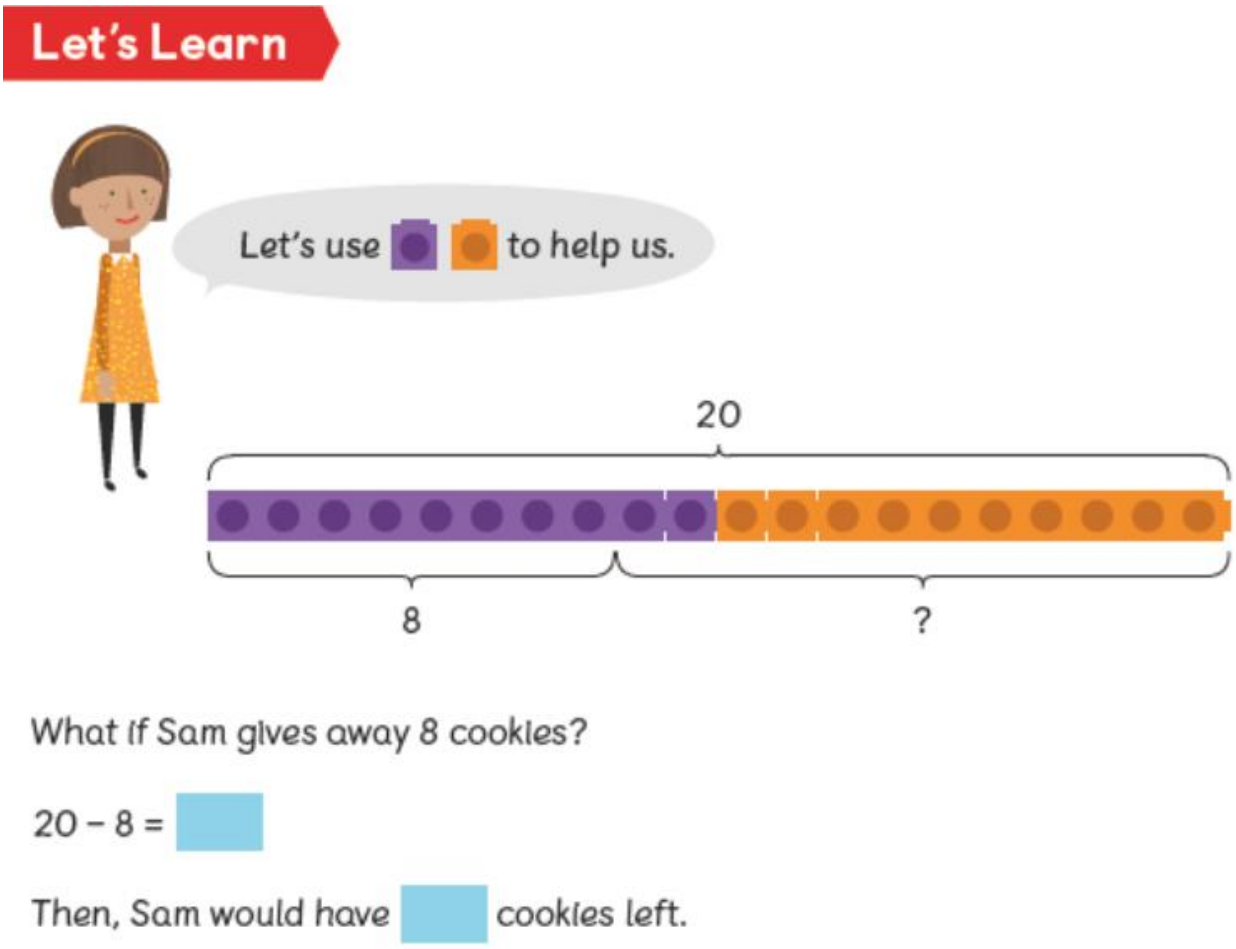
To begin this lesson, show pupils the In Focus task. Ask them to discuss whether the question is asking them to add or subtract and how they know. Once they come to the conclusion that they should subtract, ask them how they would do this if Sam gave away 8 cookies. Give them cubes to use as cookies to work this out.

Prompt pupils by saying your friend said that drawing a picture might be helpful here. How could they do this? Ask them to think about what they did with the cubes earlier on? After discussion, suggest drawing the cubes stuck together. Label this diagram with the class as shown in Let's Learn. Once the diagram is labelled, ask them if they are able to come up with a number sentence to go with the picture they have just created.

In Focus

Sam bakes 20 cookies.
What if he gives some away?

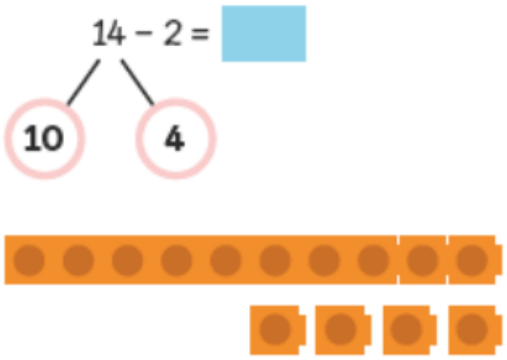
This is how it could be thought through.

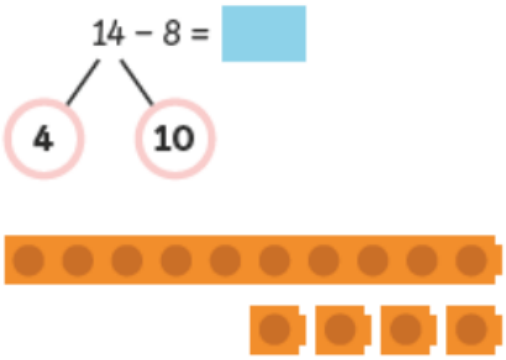


During Guided Practice, pupils are solving word problems. The focus is on reviewing number bonds to help pupils subtract when the traditional number bond is unhelpful. The first step is to review that 14 can be split into 10 and 4. Once pupils agree, can they recognise that 14 can also be split into 4 and 10? Which is more helpful in order to subtract 8 and why?

Guided Practice

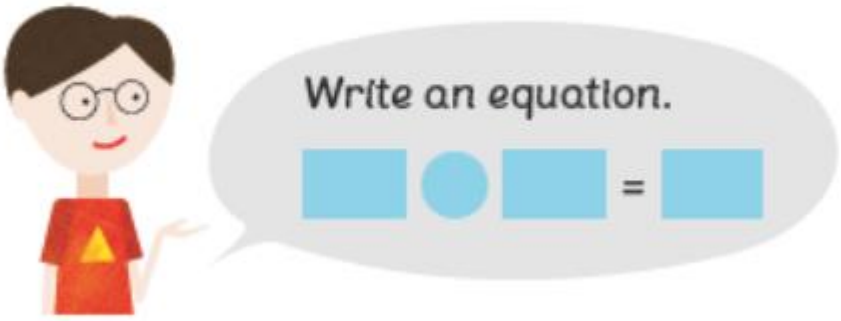
1





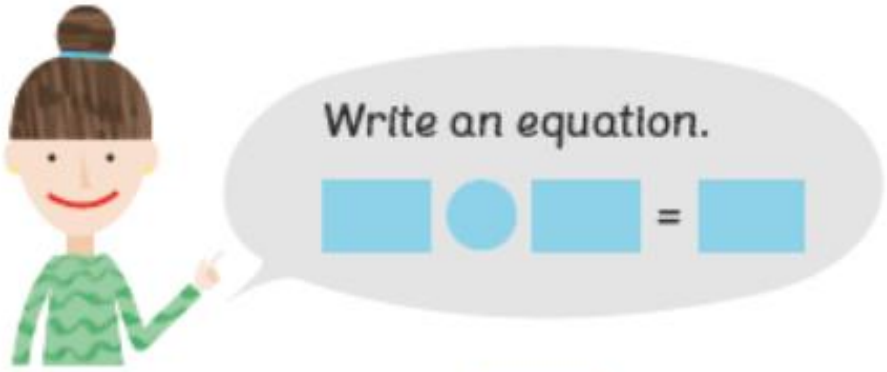
2 Ruby has 14 coins.

(a) What if she gives away 6 coins?



Then, Ruby would have ☐ coins.

(b) Instead, what if she receives another 6 coins?

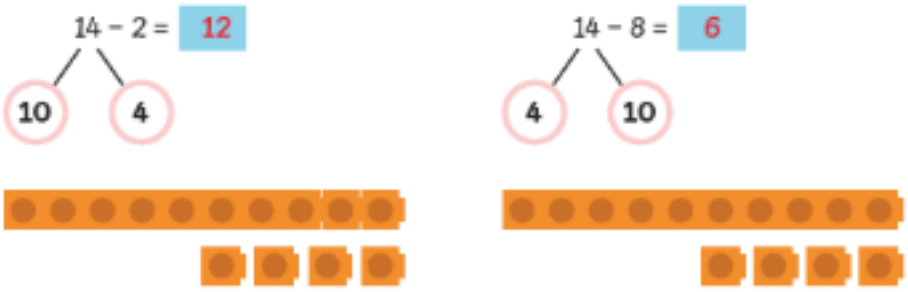


Then, Ruby would have ☐ coins.

Answers

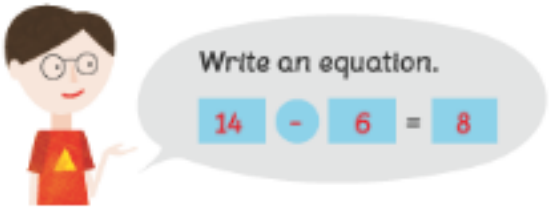
Guided Practice

1



2 Ruby has 14 coins.

(a) What if she gives away 6 coins?



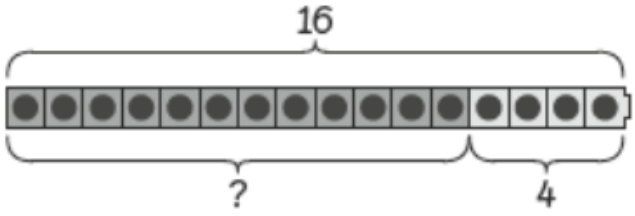
Then, Ruby would have 8 coins.

(b) Instead, what if she receives another 6 coins?

Then, Ruby would have 20 coins.

Solving Word Problems

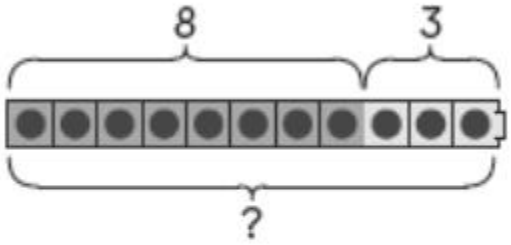
1 Holly has 16 chocolates
She eats 4 chocolates.
How many chocolates does Holly have left?



□ ○ □ = □

Holly has □ chocolates left.

2 Elliott has 8 toy robots.
He buys 3 more toy robots.
How many toy robots does Elliott have now?



□ ○ □ = □

Elliott has □ toy robots now.

3 Sam makes 12 sandwiches.
He gives away 9 sandwiches.
How many sandwiches does Sam have left?

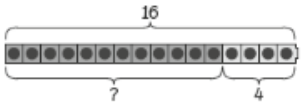
Sam has ☐ sandwiches left.

4 Lulu has 14 stamps.
She collects 5 more stamps.
How many stamps does Lulu have now?

Lulu has ☐ stamps now.

Answers

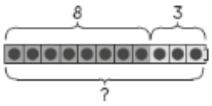
1 Holly has 16 chocolates
She eats 4 chocolates.
How many chocolates does Holly have left?



16 (-) 4 = 12

Holly has 12 chocolates left.

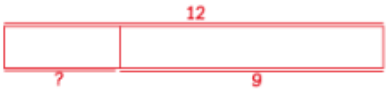
2 Elliott has 8 toy robots.
He buys 3 more toy robots.
How many toy robots does Elliott have now?



8 (+) 3 = 11

Elliott has 11 toy robots now.

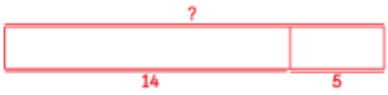
3 Sam makes 12 sandwiches.
He gives away 9 sandwiches.
How many sandwiches does Sam have left?



12 (-) 9 = 3

Sam has 3 sandwiches left.

4 Lulu has 14 stamps.
She collects 5 more stamps.
How many stamps does Lulu have now?

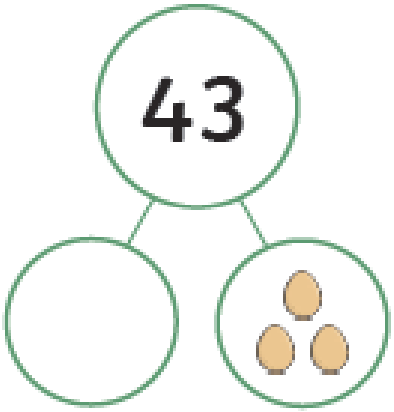


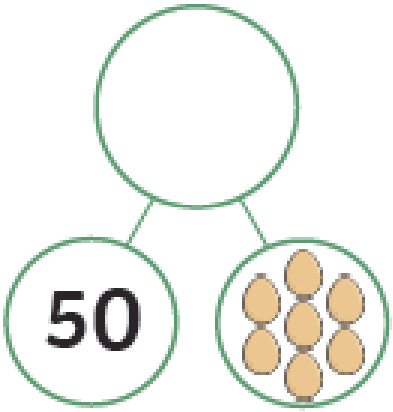
14 (+) 5 = 19

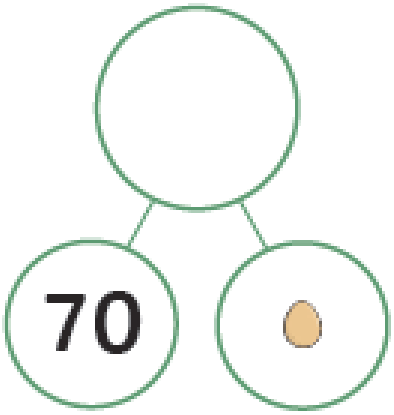
Lulu has 19 stamps now.

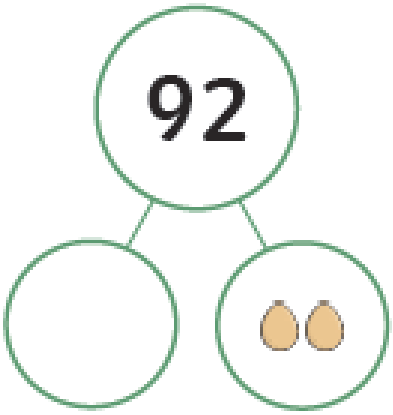
Egg Tens and Ones

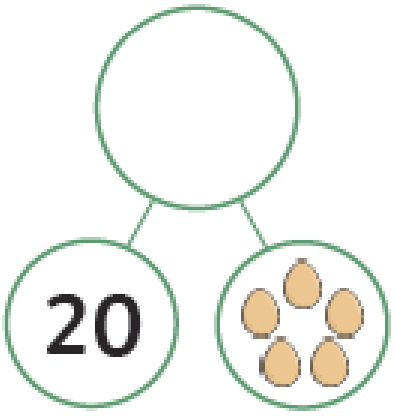
Complete the part-part-whole pictures by adding the missing number.

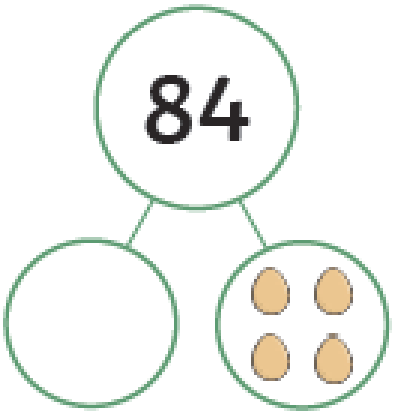












Egg Tens and Ones **Answers**

Complete the part-part-whole pictures by adding the missing number.