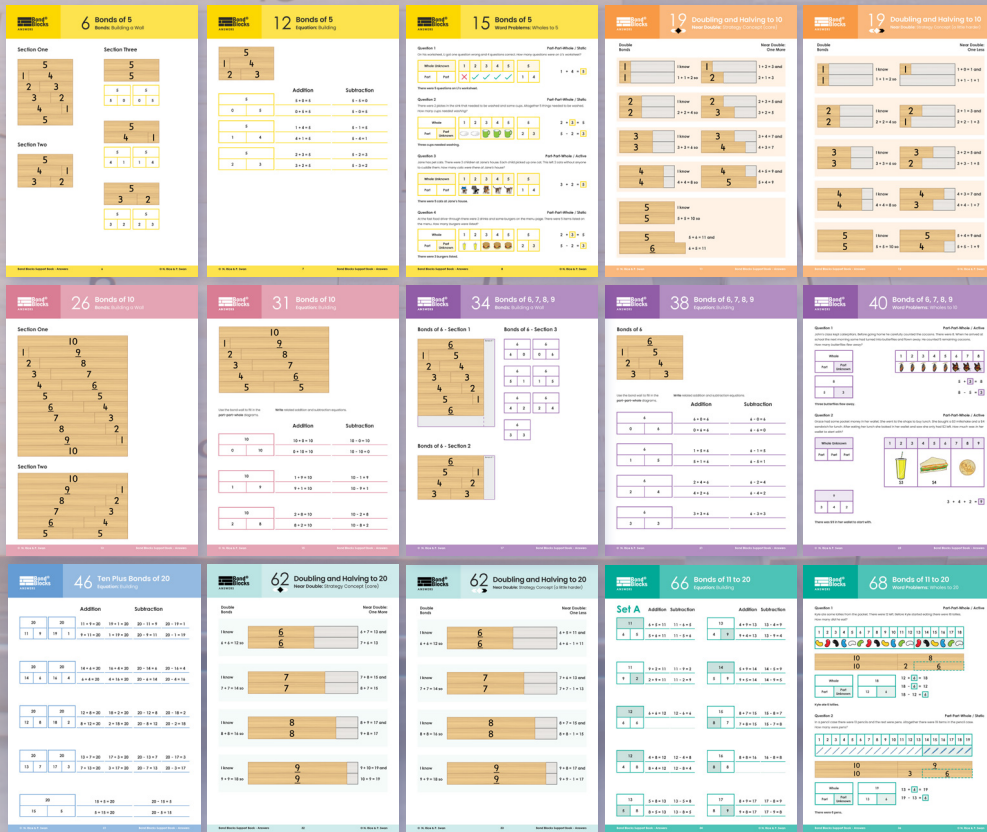


Bond Blocks Support Book: Answers

- **6 - Bonds of 5) Bonds:** Building a Wall
- **12 - Bonds of 5) Equation:** Building
- **15 - Bonds of 5) Word Problems:** Wholes to 5
- **19 - Doubling and Halving to 10) Near Double:** Strategy Concept (core)
- **19 - Doubling and Halving to 10) Near Double:** Strategy Concept (a little harder)
- **26 - Bonds of 10) Bonds:** Building a Wall
- **31 - Bonds of 10) Equation:** Building
- **34 - Bonds of 6, 7, 8, 9) Bonds:** Building a Wall
- **38 - Bonds of 6, 7, 8, 9) Equation:** Building
- **40 - Bonds of 6, 7, 8, 9) Word Problems:** Wholes to 10
- **46 - Ten Plus Bonds of 20) Equation:** Building
- **62 - Doubling and Halving to 20) Near Double:** Strategy Concept (core)
- **62 - Doubling and Halving to 20) Near Double:** Strategy Concept (a little harder)
- **66 - Bonds of 11 to 20) Equation:** Building
- **68 - Bonds of 11 to 20) Word Problems:** Wholes to 20



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Bond Blocks Support Book – Answers

First published 2021 (Updated 2023)

Authors: Narelle Rice and Dr Paul Swan

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Thank you for purchasing Bond Blocks.

We hope they help build

Curiosity,
Connections and
Confidence with maths.

- Narelle and Paul.

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About This Book

Answers for Written Student Responses

Bond Block activity boards that require a written student response have a corresponding answer sheet to assist with marking. Whilst the activity boards are A3, the answer sheets are in an A4 format for ease of printing. For example, Activity Board 6 and a corresponding answer sheet is shown below.

6 Bonds of 5 Building a Wall

Section One

Section Two

Section Three

Aims:

- Identify all of the two-part bonds of 5.
- Use the commutative property of addition to identify equivalent bonds of 5.

Materials:

- Two of each Bond Block from 1 to 5 placed in a grid (see within each of the boards).
- One dry erase marker and white and wipe slates.

Section One Instructions:

1a Build a wall of five

- Place 5 Bond Blocks in the whole, not normally in front of the student, on the top row of frame on the activity board.
- Use every Bond Block to build a wall of 5. Each row must be the same length as the full.
- Use either one large block or two blocks.
- Order? (Count) together!
- Order? If made of two blocks.

1b Order the wall of five

- Rearrange the rows of the bond wall into counting order.
- Order? How do you know you have found all the two-part bonds of five?

1c Verify the Two-Part Bonds of five

- Verify the two-part bonds of five which pointing to the related blocks.
- For example, "One and five is five" and "Two and three is five."

Section Two Instructions:

2a Commutative Property of Addition

- Select two rows that contain the same blocks, but are arranged in a different order. Separate the wall into two smaller walls to show this.
- Place the rows from the smaller walls to the frame, next to the rows from the original wall, which contain the same blocks but arranged in a different order.
- Define the commutative property of addition, changing the order of the parts blocks within each block and not changing the total of the whole. Show the order of the blocks in each row to make them the same.
- Verify the commutative property of the two-part bonds of five which pointing to the related blocks in each row.
- For example, "Two and three is equal to three and two."

Section Three Instructions:

3a Part-part-whole

- Define the top row of the frame as the whole part section. Bottom row, of the frame.
- Fill in the part-part-whole diagram to represent the blocks.
- Repeat steps for the other of the same wall in the other part-part-whole diagram.
- Repeat for the other two bonds in Section Two.
- Explain that knowing the commutative property of addition helps the number of bonds to be remembered. Cross out one part-part-whole diagram in each pair.

Activity Board 6 (Bonds of 5: Bonds Building a Wall)

6 Bonds of 5 Building a Wall

Section One

Section Three

Section Two

Bond Blocks Support Book - Answers

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Answers to Section 3 of Activity Board 6

15 Bonds of 5 Word Problems: Wholes to 5

Question 1 Part-Part-Whole / Static

On his worksheet, Li got one question wrong and 4 questions correct. How many questions were on Li's worksheet?

Whole Unknown	1	2	3	4	5	5
Part	Part	X	✓	✓	✓	✓

There were 5 questions on Li's worksheet.

$1 + 4 = 5$

Question 2 Part-Part-Whole / Static

There were 2 plates in the sink that needed to be washed and some cups. Altogether 5 things needed to be washed. How many cups needed washing?

Whole	1	2	3	4	5	5
Part	Part Unknown	2	3	4	5	5

Three cups needed washing.

$2 + 3 = 5$

$5 - 2 = 3$

Question 4 Part-Part-Whole / Static

At the fast food drive-through there were 2 drinks and some burgers on the menu page. There were 5 items listed on the menu. How many burgers were listed?

Whole	1	2	3	4	5	5
Part	Part Unknown	2	3	4	5	5

There were 3 burgers listed.

$2 + 3 = 5$

$5 - 2 = 3$

Bond Blocks Support Book - Answers

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Answers to Activity Board 15 (Bonds of 5: Word Problems Wholes to 5)

Answers for Word Problems

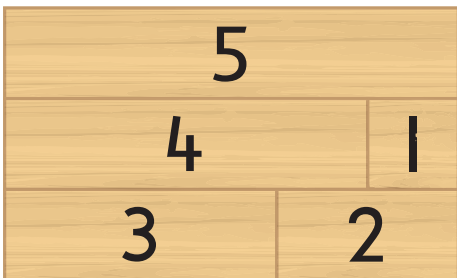
Answers to the word problems have been provided at three levels:

- Concrete:** solved using objects or drawing that can be counted with one-to-one correspondence.
- Representational:** in the form of a part-part-whole diagram.
- Abstract:** in a number sentence. Where a problem could be solved using either addition or subtraction, both options are given.
- Information relating to the **Teacher Notes: Solving Word Problems.**

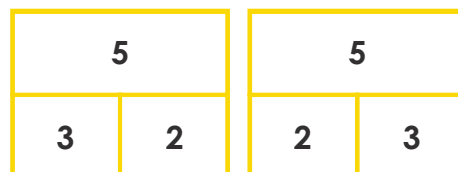
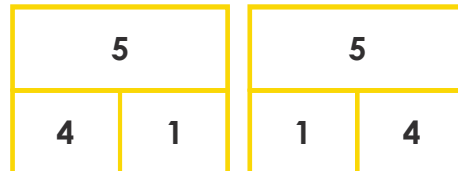
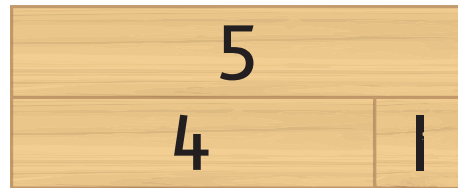
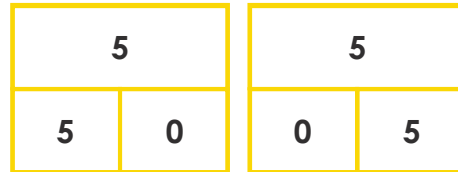
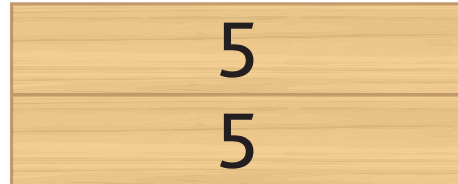
Section One



Section Two

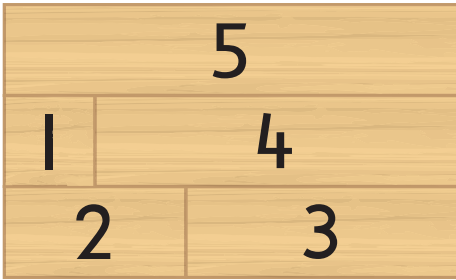


Section Three



12 Bonds of 5

Equation: Building



5	
0	5

Addition

$$5 + 0 = 5$$

$$0 + 5 = 5$$

Subtraction

$$5 - 5 = 0$$

$$5 - 0 = 5$$

5	
1	4

$$1 + 4 = 5$$

$$4 + 1 = 5$$

$$5 - 1 = 4$$

$$5 - 4 = 1$$

5	
2	3

$$2 + 3 = 5$$

$$3 + 2 = 5$$

$$5 - 2 = 3$$

$$5 - 3 = 2$$

15 Bonds of 5

Word Problems: Wholes to 5

Question 1

Part-Part-Whole / Static

On his worksheet, Li got one question wrong and 4 questions correct. *How many questions were on Li's worksheet?*

Whole Unknown		1	2	3	4	5	5	
Part	Part	✗	✓	✓	✓	✓	1	4






$$1 + 4 = 5$$

There were 5 questions on Li's worksheet.

Question 2

Part-Part-Whole / Static

There were 2 plates in the sink that needed to be washed and some cups. Altogether 5 things needed to be washed. *How many cups needed washing?*

Whole		1	2	3	4	5	5	
Part	Part Unknown						2	3

$$2 + 3 = 5$$






$$5 - 2 = 3$$

Three cups needed washing.

Question 3

Part-Part-Whole / Active

Jane has pet cats. There were 3 children at Jane's house. Each child picked up one cat. This left 2 cats without anyone to cuddle them. *How many cats were there at Jane's house?*

Whole Unknown		1	2	3	4	5	5	
Part	Part						3	2






$$3 + 2 = 5$$

There were 5 cats at Jane's house.

Question 4

Part-Part-Whole / Static

At the fast food drive-through there were 2 drinks and some burgers on the menu page. There were 5 items listed on the menu. *How many burgers were listed?*

Whole		1	2	3	4	5	5	
Part	Part Unknown						2	3

$$2 + 3 = 5$$

$$5 - 2 = 3$$

There were 3 burgers listed.

Question 5

Comparison / Static

There were some blue donuts and 5 pink donuts. There were 2 more pink donuts than blue.

How many blue donuts were there?

Larger Quantity	Pink Donuts		5	$5 - 2 = 3$
Smaller Quantity	Blue Donuts		3	

2 more pink donuts


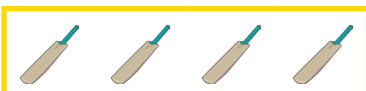
2

There were 3 blue donuts.

Question 6

Comparison / Active

The sport teacher was matching one ball to every bat when tidying up. Four bats had a matching ball. There was one bat fewer than balls. How many balls were there?

Larger Quantity	Cricket Balls		5	$4 + 1 = 5$
Smaller Quantity	Cricket Bats		4	

one bat fewer

1

There were 5 balls.

Question 7

Part-Part-Whole / Active

Chocolate bites come in bags of 5. Josh had one bag in the fridge. After eating two each day, for two days how many were left in the fridge?


Whole			1	2	3	4	5	$5 - 2 - 2 = 1$
Part	Part	Part						
			2	2				1

There was 1 chocolate bite left in the fridge.

Question 8

Part-Part-Whole / Static

Aisha had 5 toy ponies. Some were brown. The other 3 were white. How many brown ponies did Aisha have?



Whole		1	2	3	4	5	$2 + 3 = 5$
Part Unknown	Part						
		2				3	$5 - 3 = 2$

Aisha had 2 brown ponies.

Question 9

Comparison / Static

Kate was putting away her textas. Three had no lids so were dried out. Kate had two more textas with lids than without. *How many textas did Kate have still with lids?*


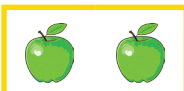
Larger Quantity	Lidded Textas		5	$3 + 2 = 5$
Smaller Quantity	No Lid Textas	 2 more with lids	3	
		Difference	2	

Kate still has 5 textas with lids.

Question 10

Comparison / Static

In the fruit bowl there were some red apples and 2 green. There was three more red than green. *How many red apples were there?*

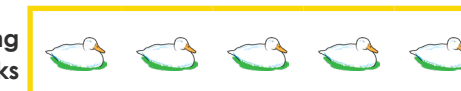

Larger Quantity	Red Apples		5	$2 + 3 = 5$
Smaller Quantity	Green Apples	 3 more red apples	2	
		Difference	3	

There were 5 red apples.

Question 11

Comparison / Static

There were some ducks swimming on the lake. There were 5 ducks sleeping on the grass next to the lake. There were 3 more sleeping ducks than swimming ducks. *How many were sleeping on the grass?*

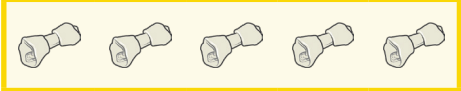
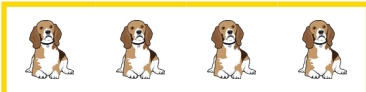
Larger Quantity	Sleeping Ducks		5	$5 - 3 = 2$
Smaller Quantity	Swimming Ducks	 3 more sleeping ducks	2	
		Difference	3	

There were 2 ducks swimming on the lake.

Question 12

Comparison / Active

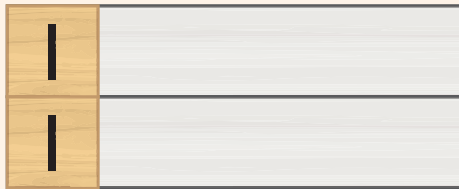
There were some bones and 4 dogs. Each dog picked up one bone to eat. There was one dog fewer than there were bones. *How many bones were there?*

Larger Quantity	Bones		5	$4 + 1 = 5$
Smaller Quantity	Dogs	 one dog fewer	4	
		Difference	1	

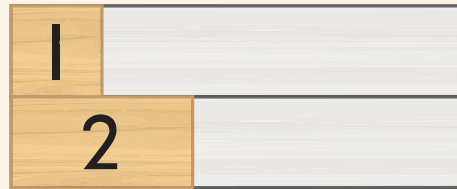
There were 5 bones.

**Double
Bonds**

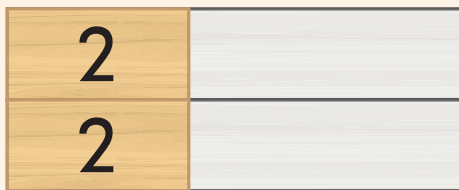
**Near Double:
One More**



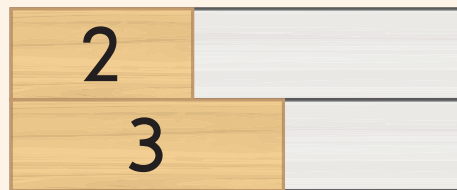
I know
 $1 + 1 = 2$ so



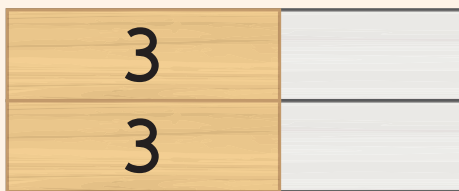
$1 + 2 = 3$ and
 $2 + 1 = 3$



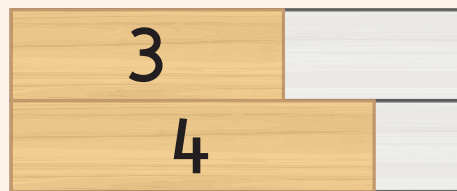
I know
 $2 + 2 = 4$ so



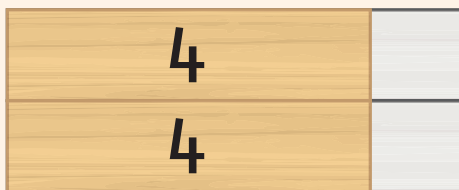
$2 + 3 = 5$ and
 $3 + 2 = 5$



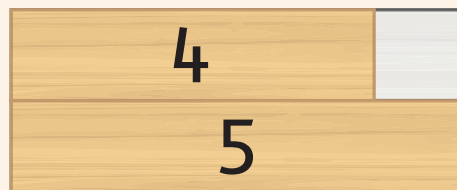
I know
 $3 + 3 = 6$ so



$3 + 4 = 7$ and
 $4 + 3 = 7$



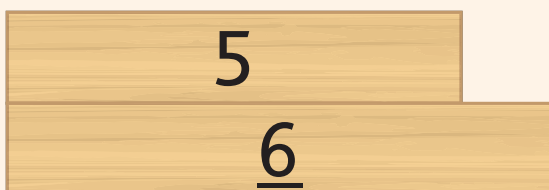
I know
 $4 + 4 = 8$ so



$4 + 5 = 9$ and
 $5 + 4 = 9$



I know
 $5 + 5 = 10$ so



$5 + 6 = 11$ and
 $6 + 5 = 11$

**Double
Bonds**

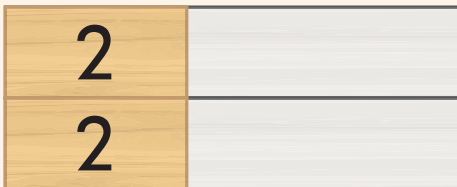
**Near Double:
One Less**



I know
 $1 + 1 = 2$ so



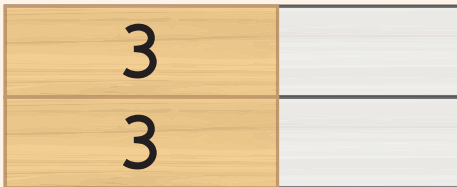
$1 + 0 = 1$ and
 $1 + 1 - 1 = 1$



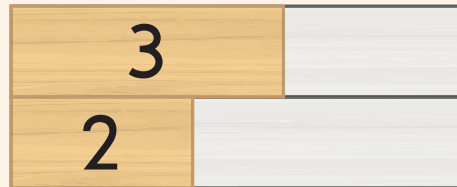
I know
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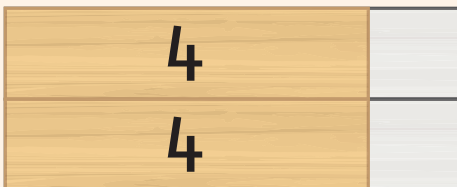
$2 + 1 = 3$ and
 $2 + 2 - 1 = 3$



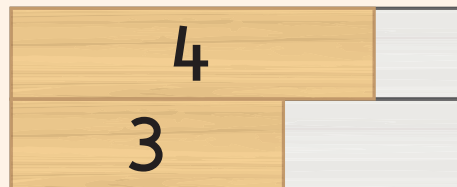
I know
 $3 + 3 = 6$ so



$3 + 2 = 5$ and
 $3 + 3 - 1 = 5$



I know
 $4 + 4 = 8$ so



$4 + 3 = 7$ and
 $4 + 4 - 1 = 7$

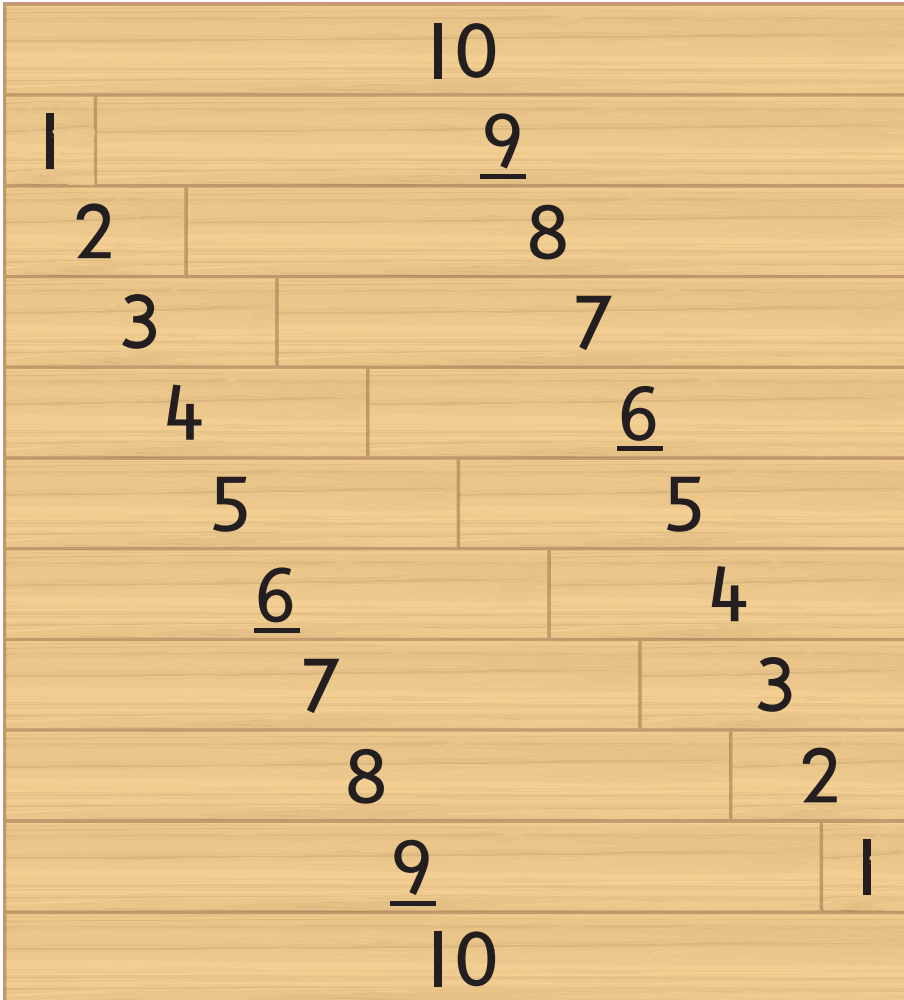


I know
 $5 + 5 = 10$ so

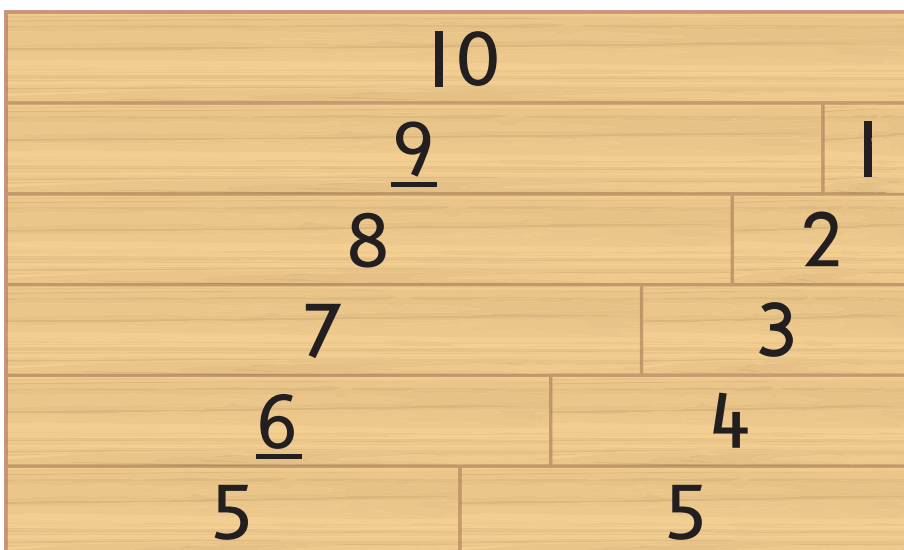


$5 + 4 = 9$ and
 $5 + 5 - 1 = 9$

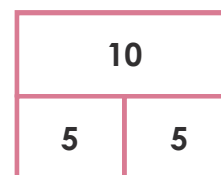
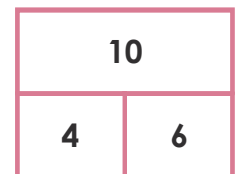
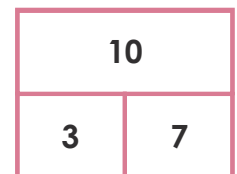
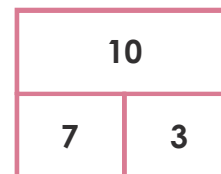
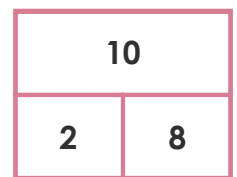
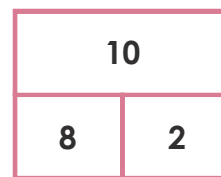
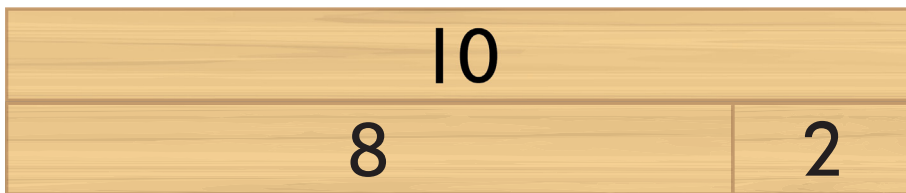
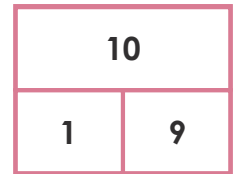
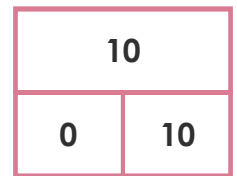
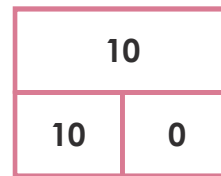
Section One

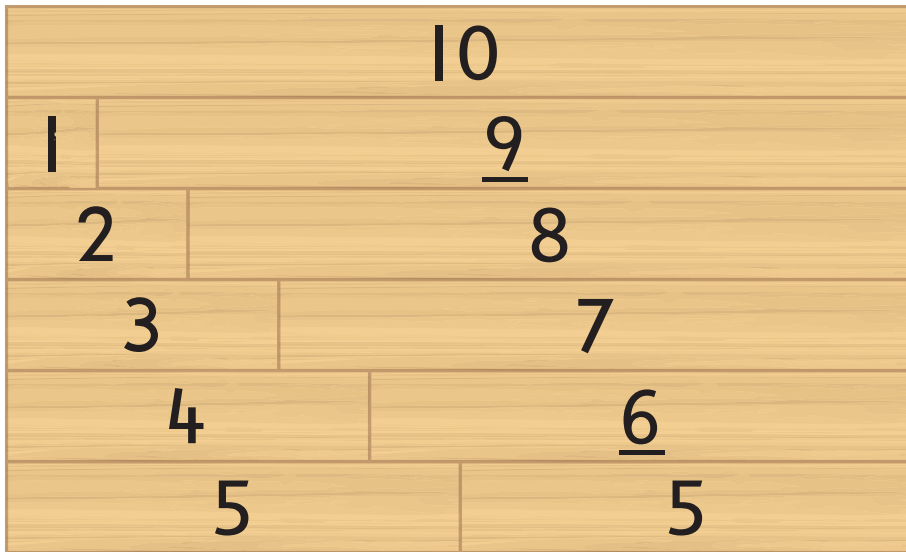


Section Two



Section Three





Use the bond wall to fill in the part-part-whole diagrams.

Write related addition and subtraction equations.

		Addition	Subtraction
10		$10 + 0 = 10$	$10 - 0 = 10$
0	10	$0 + 10 = 10$	$10 - 10 = 0$
10		$1 + 9 = 10$	$10 - 1 = 9$
1	9	$9 + 1 = 10$	$10 - 9 = 1$
10		$2 + 8 = 10$	$10 - 2 = 8$
2	8	$8 + 2 = 10$	$10 - 8 = 2$

Use the bond wall to fill in the part-part-whole diagrams.

Write related addition and subtraction equations.

Addition**Subtraction**

10	
3	7

$3 + 7 = 10$

$10 - 3 = 7$

$7 + 3 = 10$

$10 - 7 = 3$

10	
4	6

$4 + 6 = 10$

$10 - 4 = 6$

$6 + 4 = 10$

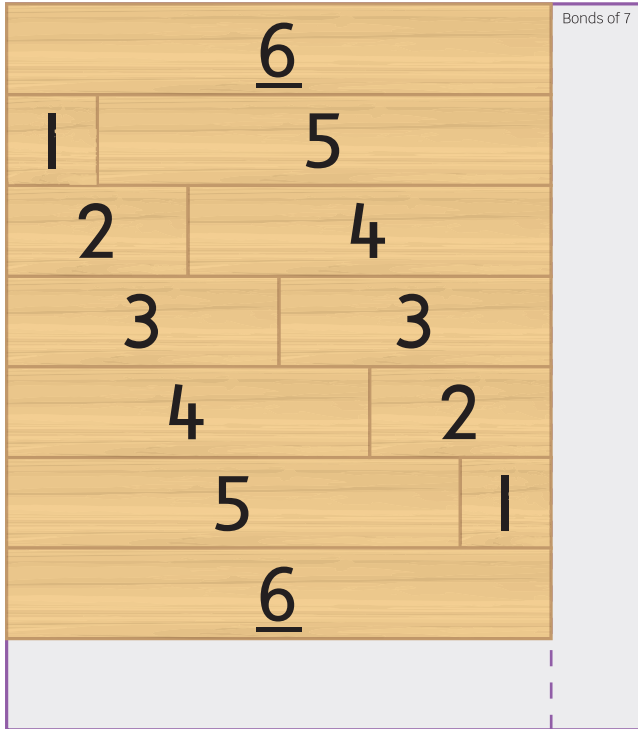
$10 - 4 = 6$

10	
5	5

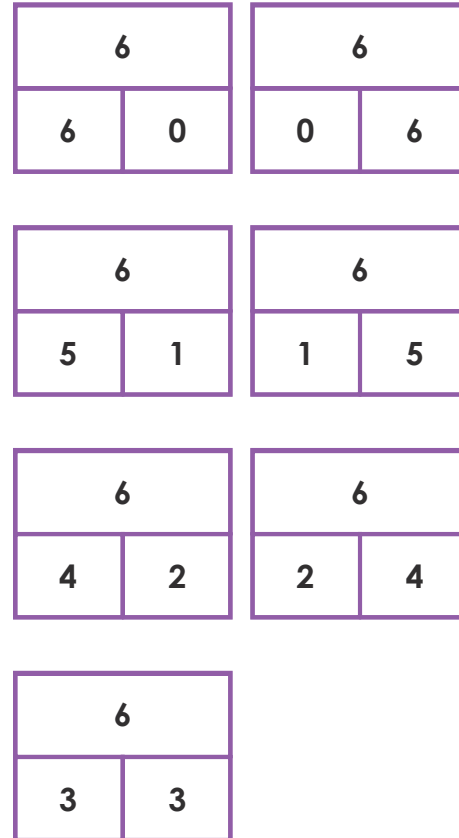
$5 + 5 = 10$

$10 - 5 = 5$

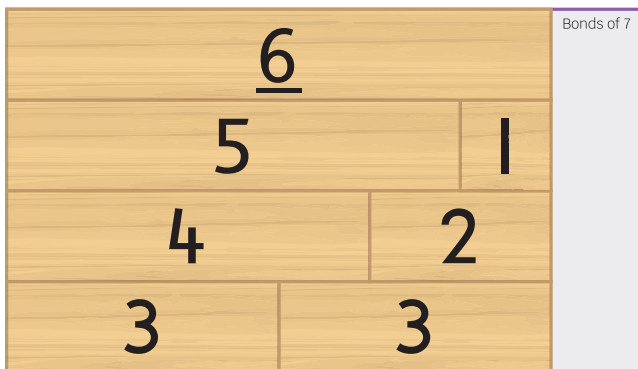
Bonds of 6 - Section 1



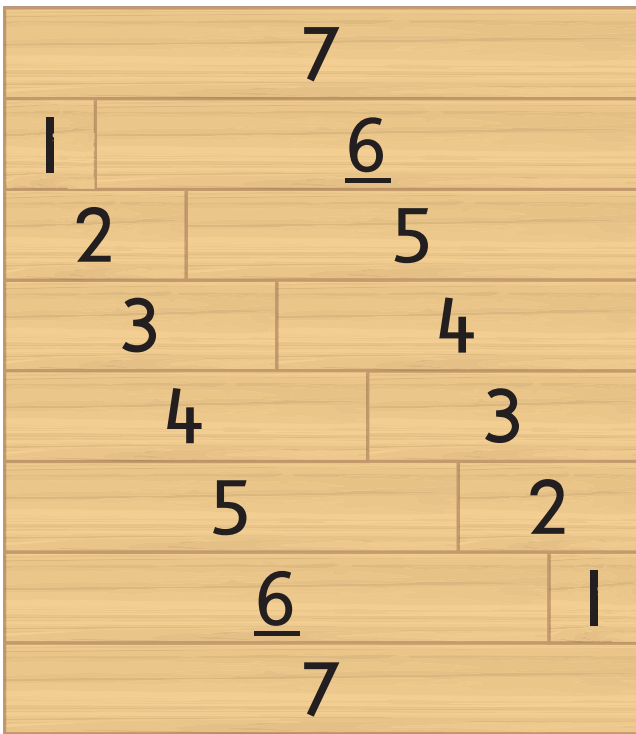
Bonds of 6 - Section 3



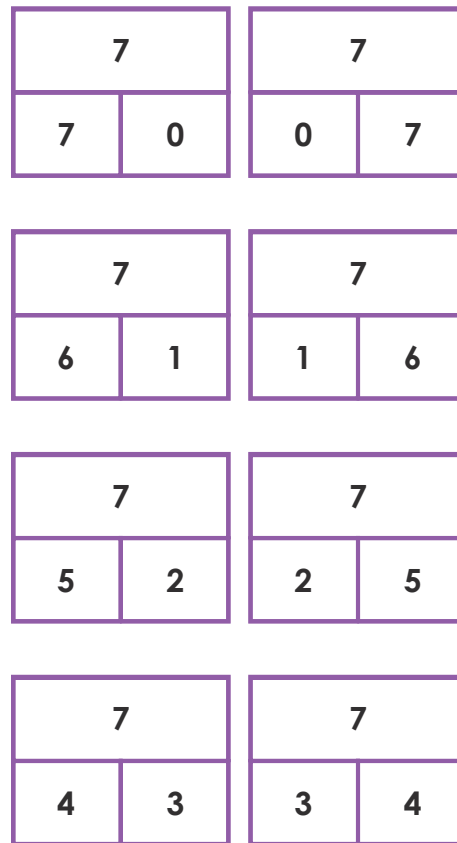
Bonds of 6 - Section 2



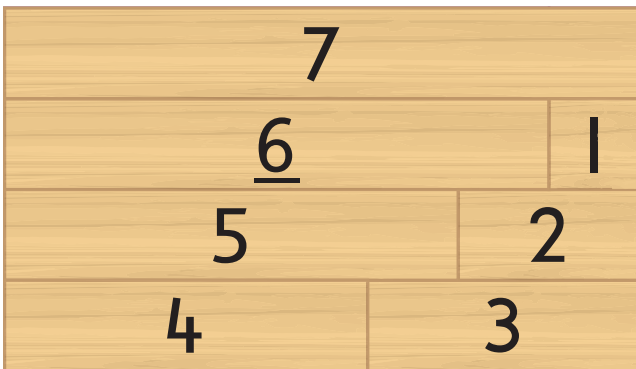
Bonds of 7 - Section 1



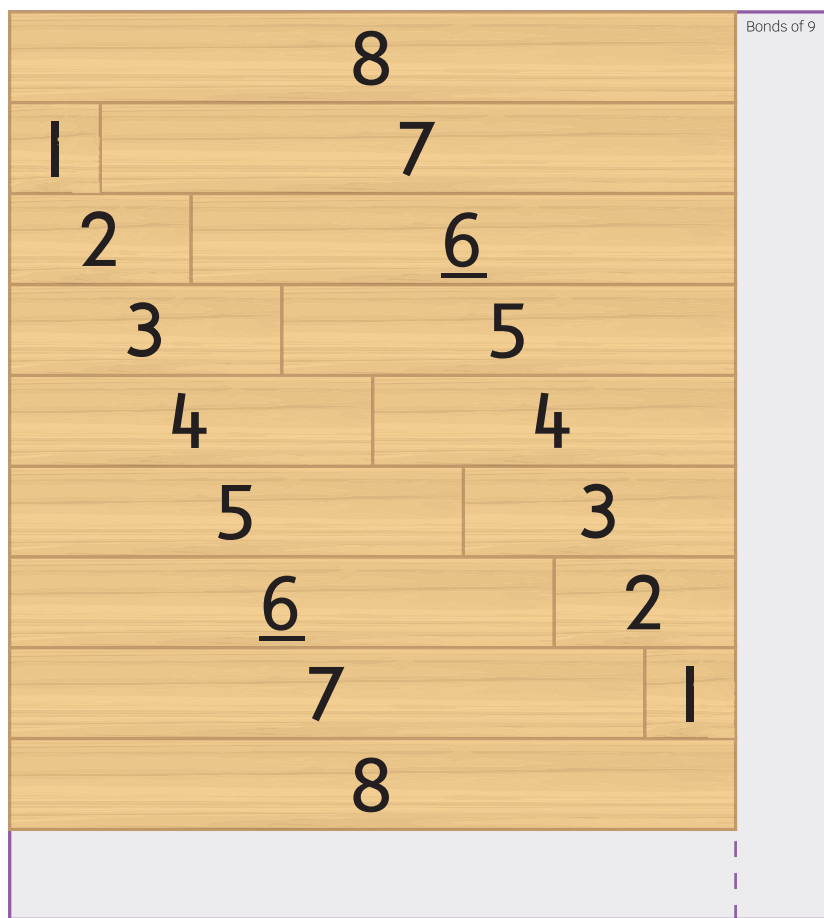
Bonds of 7 - Section 3



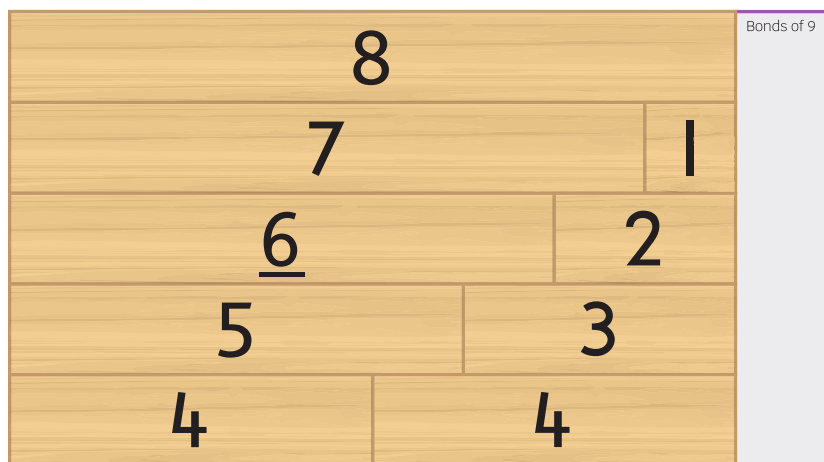
Bonds of 7 - Section 2



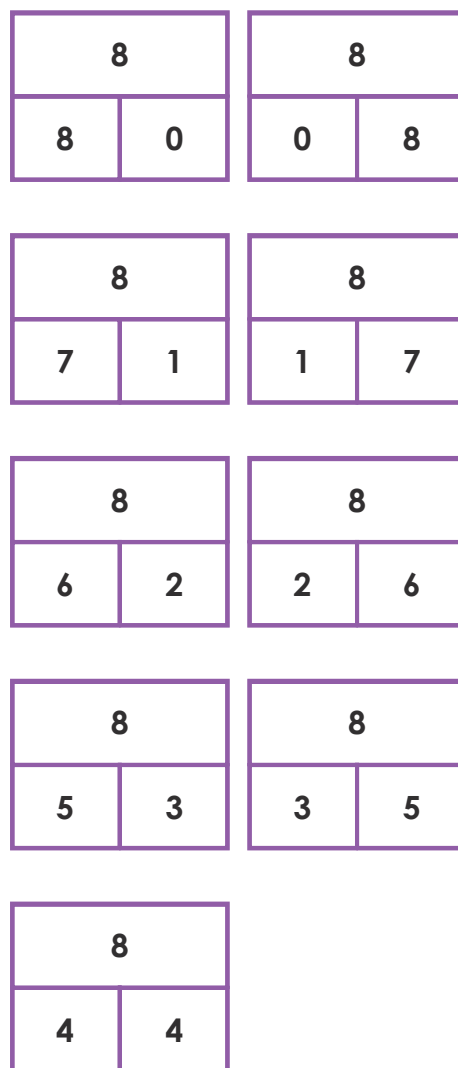
Bonds of 8 - Section 1



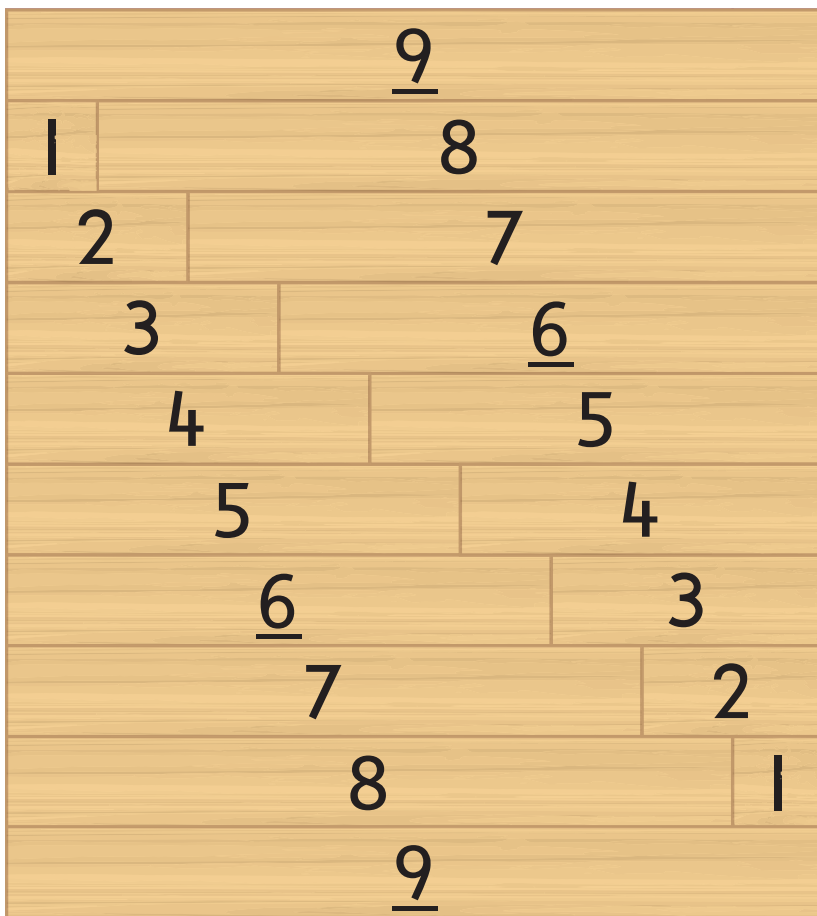
Bonds of 8 - Section 2



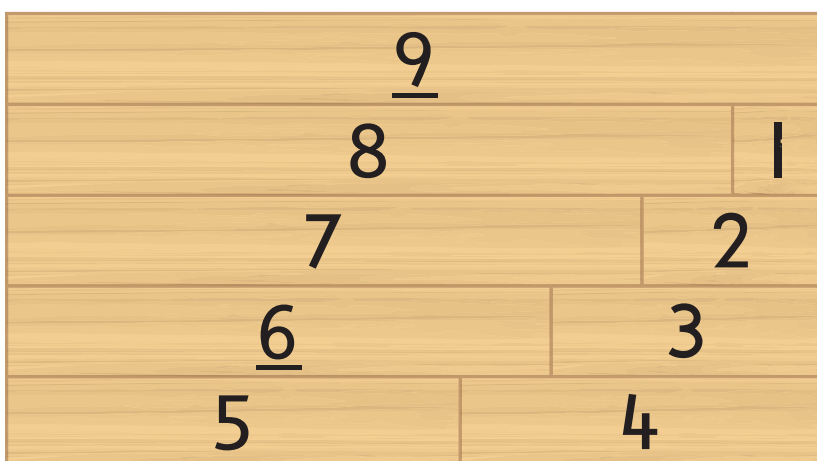
Bonds of 8 - Section 3



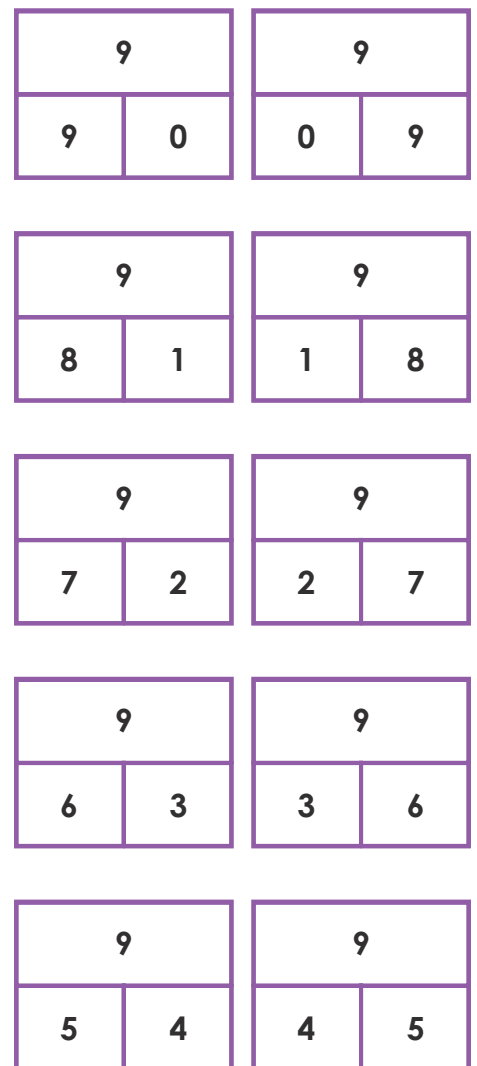
Bonds of 9 - Section 1



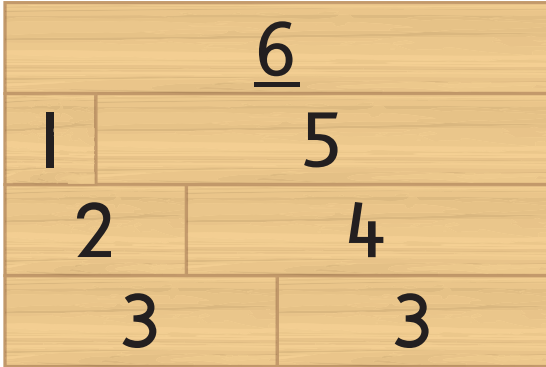
Bonds of 9 - Section 2



Bonds of 9 - Section 3



Bonds of 6

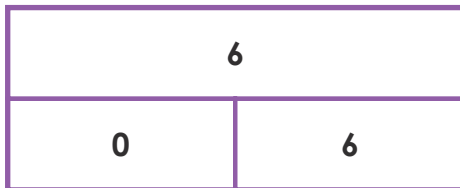


Use the bond wall to fill in the part-part-whole diagrams.

Write related addition and subtraction equations.

Addition

Subtraction

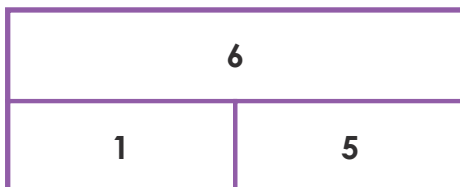


$6 + 0 = 6$

$6 - 0 = 6$

$0 + 6 = 6$

$6 - 6 = 0$

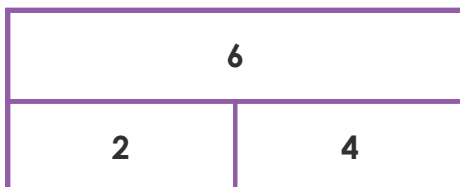


$1 + 5 = 6$

$6 - 1 = 5$

$5 + 1 = 6$

$6 - 5 = 1$

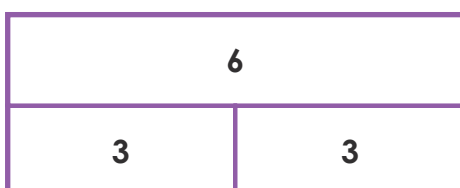


$2 + 4 = 6$

$6 - 2 = 4$

$4 + 2 = 6$

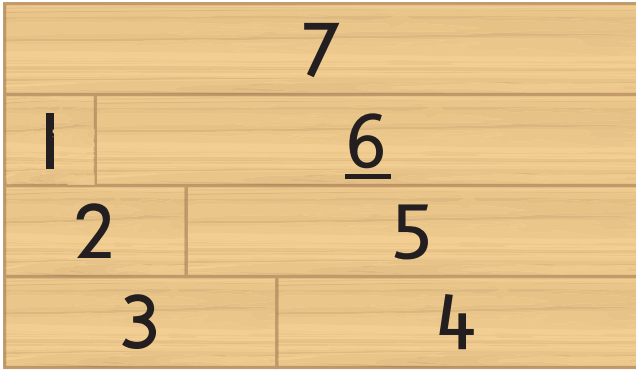
$6 - 4 = 2$



$3 + 3 = 6$

$6 - 3 = 3$

Bonds of 7

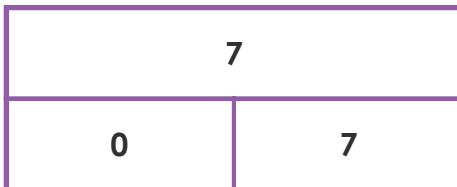


Use the bond wall to fill in the part-part-whole diagrams.

Write related addition and subtraction equations.

Addition

Subtraction

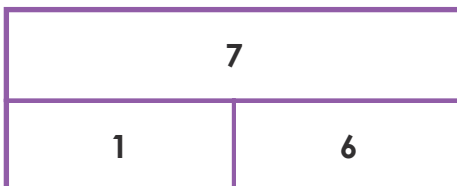


$7 + 0 = 7$

$7 - 0 = 7$

$0 + 7 = 7$

$7 - 7 = 0$

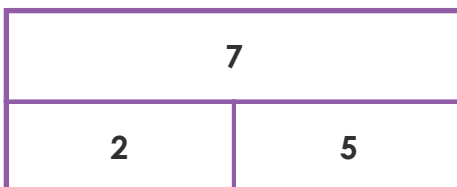


$1 + 6 = 7$

$7 - 1 = 6$

$6 + 1 = 7$

$7 - 6 = 1$

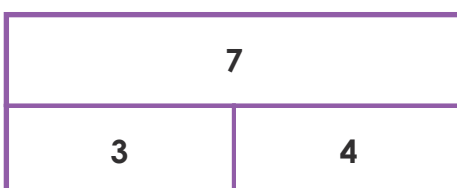


$2 + 5 = 7$

$7 - 2 = 5$

$5 + 2 = 7$

$7 - 5 = 2$



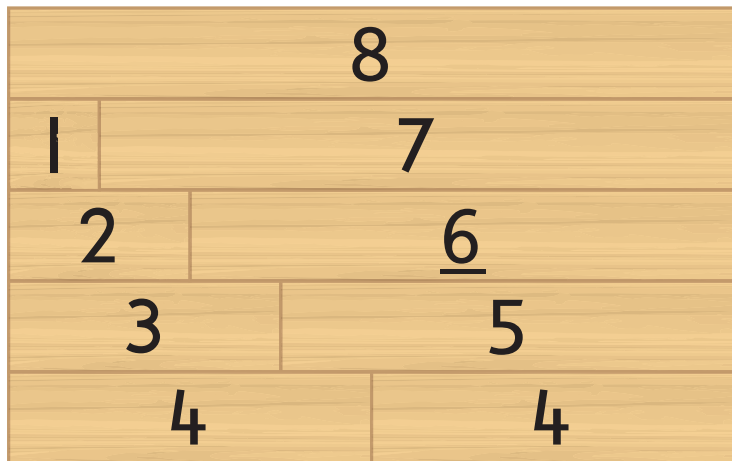
$3 + 4 = 7$

$7 - 3 = 4$

$4 + 3 = 7$

$7 - 4 = 3$

Bonds of 8

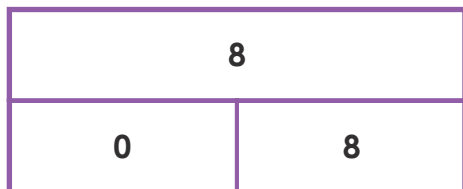


Use the bond wall to fill in the part-part-whole diagrams.

Write related addition and subtraction equations.

Addition

Subtraction

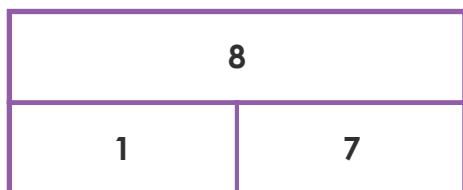


$8 + 0 = 8$

$8 - 0 = 8$

$0 + 8 = 8$

$8 - 8 = 0$

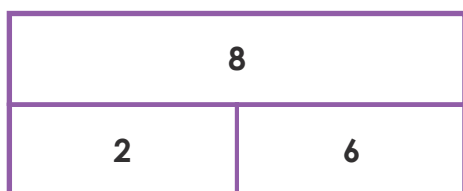


$1 + 7 = 8$

$8 - 1 = 7$

$7 + 1 = 8$

$8 - 7 = 1$

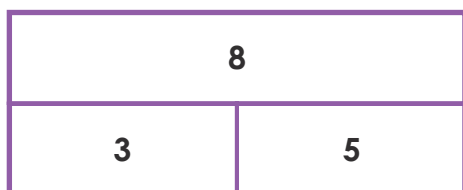


$2 + 6 = 8$

$8 - 2 = 6$

$6 + 2 = 8$

$8 - 6 = 2$

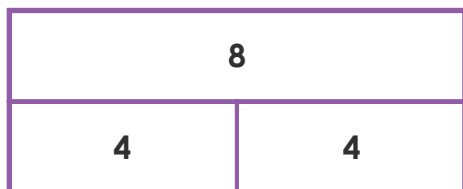


$3 + 5 = 8$

$8 - 3 = 5$

$5 + 3 = 8$

$8 - 5 = 3$



$4 + 4 = 8$

$8 - 4 = 4$

Bonds of 9

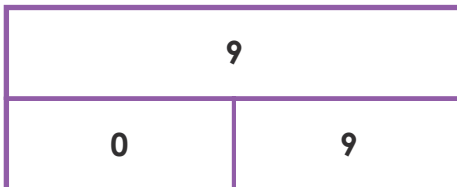


Use the bond wall to fill in the part-part-whole diagrams.

Write related addition and subtraction equations.

Addition

Subtraction

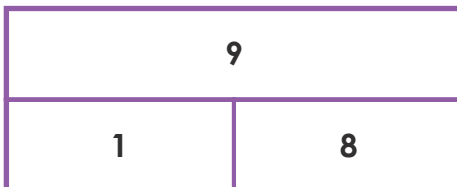


$9 + 0 = 9$

$9 - 0 = 9$

$0 + 9 = 9$

$9 - 9 = 0$

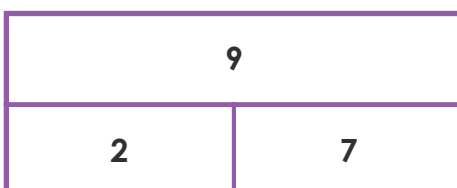


$1 + 8 = 9$

$9 - 1 = 8$

$8 + 1 = 9$

$9 - 8 = 1$

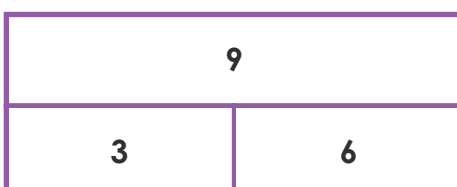


$2 + 7 = 9$

$9 - 2 = 7$

$7 + 2 = 9$

$9 - 7 = 2$

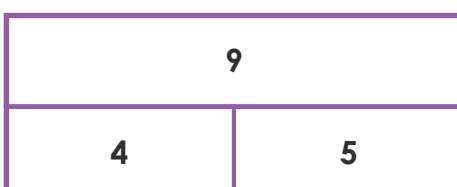


$3 + 6 = 9$

$9 - 3 = 6$

$6 + 3 = 9$

$9 - 6 = 3$



$4 + 5 = 9$

$9 - 4 = 5$

$5 + 4 = 9$

$9 - 5 = 4$

Question 1

Part-Part-Whole / Active

John's class kept caterpillars. Before going home he carefully counted the cocoons. There were 8. When he arrived at school the next morning some had turned into butterflies and flown away. He counted 5 remaining cocoons.

How many butterflies flew away?

Whole	
Part	Part Unknown

1	2	3	4	5	6	7	8
							

8	
5	3

$$5 + 3 = 8$$

$$8 - 5 = 3$$


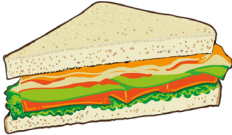

Three butterflies flew away.

Question 2

Part-Part-Whole / Active

Grace had some pocket money in her wallet. She went to the shops to buy lunch. She bought a \$3 milkshake and a \$4 sandwich for lunch. After eating her lunch she looked in her wallet and saw she only had \$2 left. How much was in her wallet to start with?

Whole Unknown		
Part	Part	Part

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

9		
3	4	2

$$3 + 4 + 2 = 9$$

There was \$9 in her wallet to start with.

Question 3

Comparison / Static

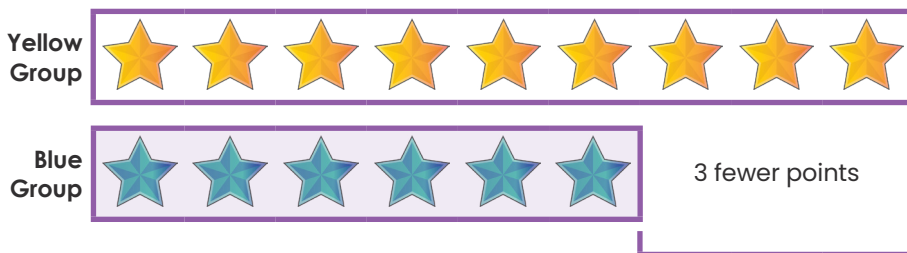
When students in Miss Star’s class followed instructions she gave them group points. The blue group had 3 fewer points than the winning yellow group. The yellow group won with 9 points. *How many points did the blue team score?*

Larger Quantity

Smaller Quantity Difference

9

6 3



$$9 - 3 = 6$$

The blue team scored 6 points.

Question 4

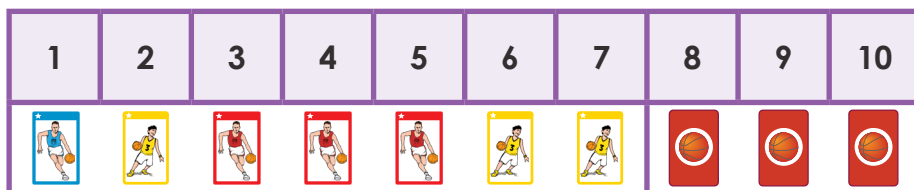
Part-Part-Whole / Active

Chung’s Dad gave him some packets of collector cards. Each packet had one card inside. He had opened 7 packets and had 3 packets still to open. *How many packets did his dad give him?*

Whole Unknown

Part	Part
------	------

10	
7	3



$$7 + 3 = 10$$

His dad gave him 10 packets.

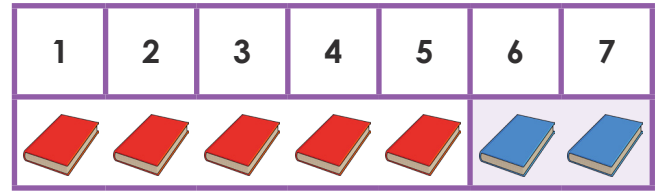
Question 5

Part-Part-Whole / Static

Yasmine is at her local library. Each person is allowed to borrow 7 books. She has 5 books on loan at home. How many can she borrow today?

Whole	
Part	Part Unknown

7	
5	2



$$5 + 2 = 7$$

$$7 - 5 = 2$$

Yasmine can borrow 2 books today.

Question 6

Comparison / Active and Part-Part-Whole / Static

Kaitlyn cooked cupcakes. She iced some but ran out of icing. There were 3 cupcakes left without icing. She counted the iced cupcakes and found she had two more with icing than those without. How many cupcakes did she cook?

Step 1:

Comparison / Active

Larger Quantity

Smaller Quantity	Difference
------------------	------------

5

3	2
---	---



$$3 + 2 = 5$$

Kaitlyn iced 5 cupcakes.

Step 2:

Part-Part-Whole / Static

Whole Unknown	
Part	Part

8	
5	3



$$5 + 3 = 8$$

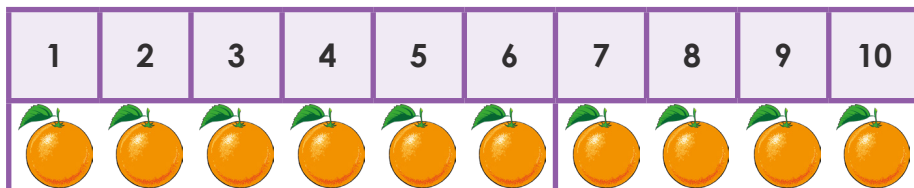
Kaitlyn cooked 8 cupcakes.

Question 7

Part-Part-Whole / Active

There was a bag full of oranges. Six were squeezed to make juice. This left 4 oranges in the bag. *How many were in the bag to start with?*

Whole Unknown	
Part	Part



10	
6	4

$6 + 4 = 10$

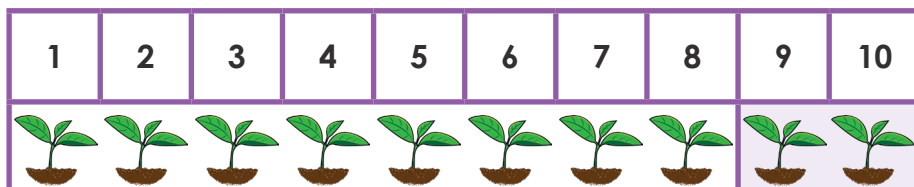
There were 10 oranges in the bag to start with.

Question 8

Part-Part-Whole / Active

Abdalla planted 10 seedlings in his garden but it rained overnight and the snails ate some. The next morning he only had 8 seedlings left. *How many seedlings did the snails eat?*

Whole	
Part	Part Unknown



10	
8	2

$8 + 2 = 10$

$10 - 8 = 2$

The snails ate 2 seedlings.

Question 9

Comparison / Static and Part-Part-Whole / Active

Tim had 2 battery operated toy trains. His friend Isabelle had 4 more than him. Tim went to play at Isabelle's house and took his trains. *How many trains did they have to play with together?*

Step 1:

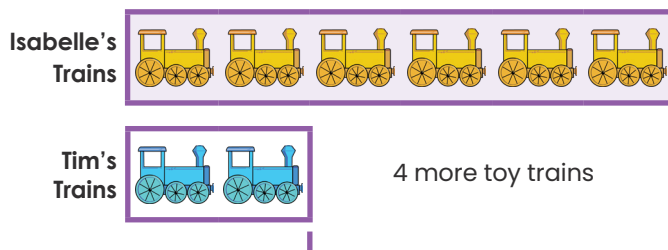
Comparison / Static

Larger Quantity

Smaller Quantity	Difference
------------------	------------

6

2	4
---	---











$2 + 4 = 6$

Isabelle had 6 battery operated toy trains.

Step 2:

Part-Part-Whole / Active

Whole Unknown	
Part	Part

1	2	3	4	5	6	7	8
							

8	
2	6

$2 + 6 = 8$

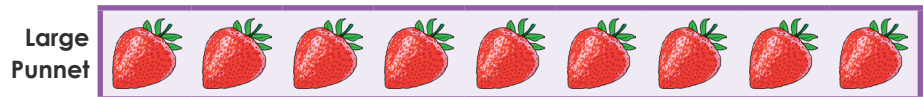
Tim and Isabelle had 8 trains to play with together.

Question 10

Comparison / Active

Louisa's mum bought two punnets of strawberries. One large punnet and one small one. The large one had 5 more strawberries than the small one. Louisa ate the whole small punnet of 4 strawberries. How many strawberries are in the large punnet?

Larger Quantity



Smaller Quantity	Difference
------------------	------------



9

$4 + 5 = 9$

4	5
---	---

There were 9 strawberries in the large punnet.

Question 11

Comparison / Active

During sport the class was split into two teams and played each other in a game of football. The losing team scored 4 goals and lost by 3. How many goals did the winning team score?

Larger Quantity



Smaller Quantity	Difference
------------------	------------



7

$4 + 3 = 7$

4	3
---	---

The winning team scored 7 goals.

Question 12

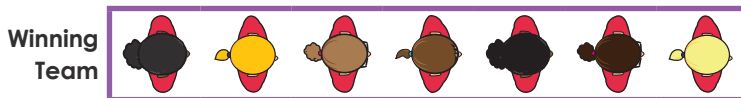
Comparison / Static and Part-Part-Whole / Static

After lunch the children from Miss Tayla’s room line up in two lines. One line of girls and one line of boys, standing next to each other in pairs. The boys’ line has 4 fewer children than the girls’ line which has 7 girls. *How many children are in Miss Tayla’s class?*

Step 1: Calculate the number of boys.

Comparison / Static

Larger Quantity



Smaller Quantity	Difference
------------------	------------



7

$$7 - 4 = 3$$

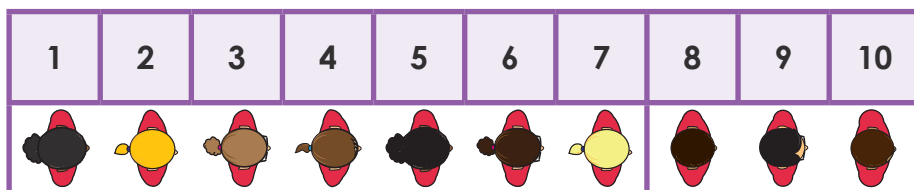
3	4
---	---

There are 3 boys in Miss Tayla’s class.

Step 2: Calculate the number of children.

Part-Part-Whole / Static

Whole Unknown	
Part	Part



10	
7	3

$$7 + 3 = 10$$

There are 10 children in Miss Tayla’s class.

Addition

Subtraction

20	
11	9

20	
19	1

$11 + 9 = 20$

$19 + 1 = 20$

$20 - 11 = 9$

$20 - 19 = 1$

$9 + 11 = 20$

$1 + 19 = 20$

$20 - 9 = 11$

$20 - 1 = 19$

20	
14	6

20	
16	4

$14 + 6 = 20$

$16 + 4 = 20$

$20 - 14 = 6$

$20 - 16 = 4$

$6 + 4 = 20$

$4 + 16 = 20$

$20 - 6 = 14$

$20 - 4 = 16$

20	
12	8

20	
18	2

$12 + 8 = 20$

$18 + 2 = 20$

$20 - 12 = 8$

$20 - 18 = 2$

$8 + 12 = 20$

$2 + 18 = 20$

$20 - 8 = 12$

$20 - 2 = 18$

20	
13	7

20	
17	3

$13 + 7 = 20$

$17 + 3 = 20$

$20 - 13 = 7$

$20 - 17 = 3$

$7 + 13 = 20$

$3 + 17 = 20$

$20 - 7 = 13$

$20 - 3 = 17$

20	
15	5

$15 + 5 = 20$

$20 - 15 = 5$

$5 + 15 = 20$

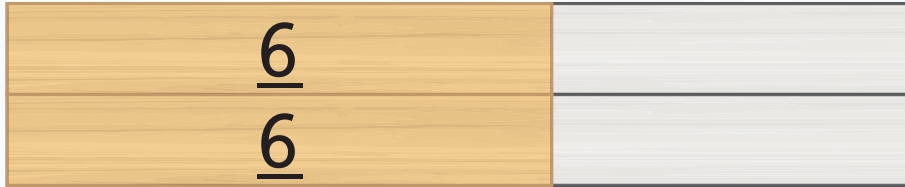
$20 - 5 = 15$

Double Bonds

Near Double: One More

I know

$6 + 6 = 12$ so

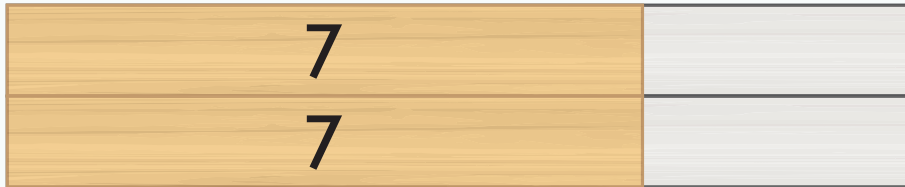


$6 + 7 = 13$ and

$7 + 6 = 13$

I know

$7 + 7 = 14$ so

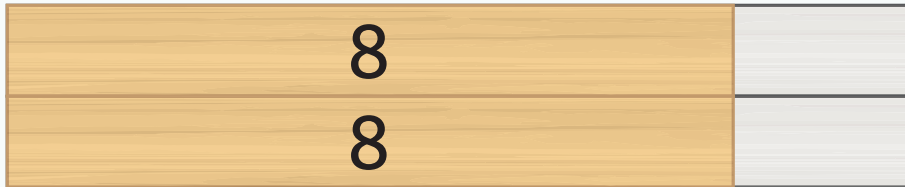


$7 + 8 = 15$ and

$8 + 7 = 15$

I know

$8 + 8 = 16$ so

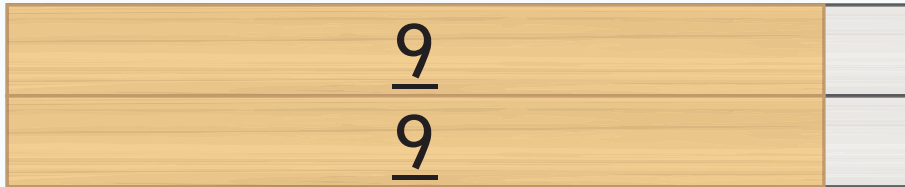


$8 + 9 = 17$ and

$9 + 8 = 17$

I know

$9 + 9 = 18$ so



$9 + 10 = 19$ and

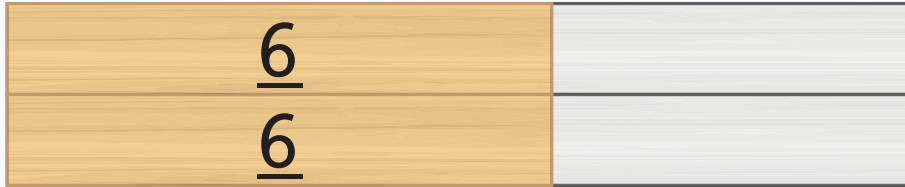
$10 + 9 = 19$

Double
Bonds

Near Double:
One Less

I know

$6 + 6 = 12$ so

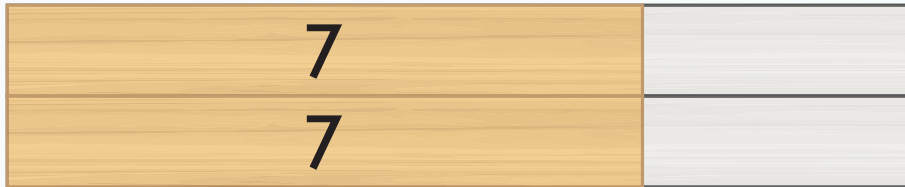


$6 + 5 = 11$ and

$6 + 6 - 1 = 11$

I know

$7 + 7 = 14$ so

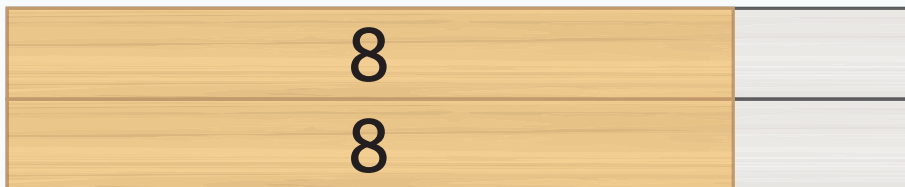


$7 + 6 = 13$ and

$7 + 7 - 1 = 13$

I know

$8 + 8 = 16$ so

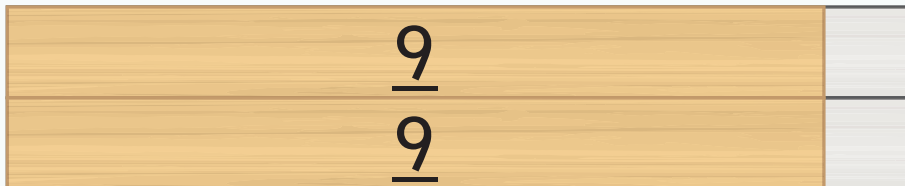


$8 + 7 = 15$ and

$8 + 8 - 1 = 15$

I know

$9 + 9 = 18$ so



$9 + 8 = 17$ and

$9 + 9 - 1 = 17$

Set A

Addition Subtraction

11		$6 + 5 = 11$	$11 - 6 = 5$
6	5	$5 + 6 = 11$	$11 - 5 = 6$

Addition Subtraction

13		$4 + 9 = 13$	$13 - 4 = 9$
4	9	$9 + 4 = 13$	$13 - 9 = 4$

11		$9 + 2 = 11$	$11 - 9 = 2$
9	2	$2 + 9 = 11$	$11 - 2 = 9$

14		$5 + 9 = 14$	$14 - 5 = 9$
5	9	$9 + 5 = 14$	$14 - 9 = 5$

12		$6 + 6 = 12$	$12 - 6 = 6$
6	6		

15		$8 + 7 = 15$	$15 - 8 = 7$
8	7	$7 + 8 = 15$	$15 - 7 = 8$

12		$4 + 8 = 12$	$12 - 4 = 8$
4	8	$8 + 4 = 12$	$12 - 8 = 4$

16		$8 + 8 = 16$	$16 - 8 = 8$
8	8		

13		$5 + 8 = 13$	$13 - 5 = 8$
5	8	$8 + 5 = 13$	$13 - 8 = 5$

17		$8 + 9 = 17$	$17 - 8 = 9$
8	9	$9 + 8 = 17$	$17 - 9 = 8$

Set B

Addition Subtraction

15		$6 + 9 = 15$	$15 - 6 = 9$
6	9	$9 + 6 = 15$	$15 - 9 = 6$

12		$7 + 5 = 12$	$12 - 7 = 5$
7	5	$5 + 7 = 12$	$12 - 5 = 7$

14		$6 + 8 = 14$	$14 - 6 = 8$
6	8	$8 + 6 = 14$	$14 - 8 = 6$

11		$8 + 3 = 11$	$11 - 8 = 3$
8	3	$3 + 8 = 11$	$11 - 3 = 8$

14		$7 + 7 = 14$	$14 - 7 = 7$
7	7		

Addition Subtraction

12		$3 + 9 = 12$	$12 - 3 = 9$
3	9	$9 + 3 = 12$	$12 - 9 = 3$

13		$6 + 7 = 13$	$13 - 6 = 7$
6	7	$7 + 6 = 13$	$13 - 7 = 6$

16		$9 + 7 = 16$	$16 - 9 = 7$
9	7	$7 + 9 = 16$	$16 - 7 = 9$

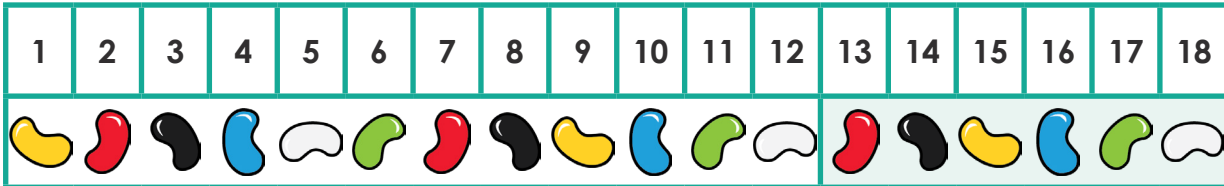
18		$9 + 9 = 18$	$18 - 9 = 9$
9	9		

11		$7 + 4 = 11$	$11 - 7 = 4$
7	4	$4 + 7 = 11$	$11 - 4 = 7$

Question 1

Part-Part-Whole / Active

Kyle ate some lollies from the packet. There were 12 left. Before Kyle started eating there were 18 lollies.
How many did he eat?



Whole	
Part	Part Unknown

18	
12	6

$$12 + 6 = 18$$

$$18 - 6 = 12$$

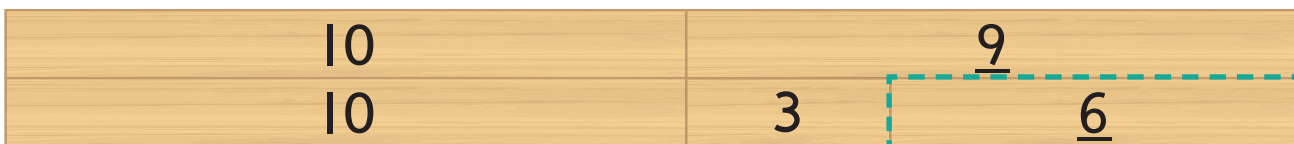
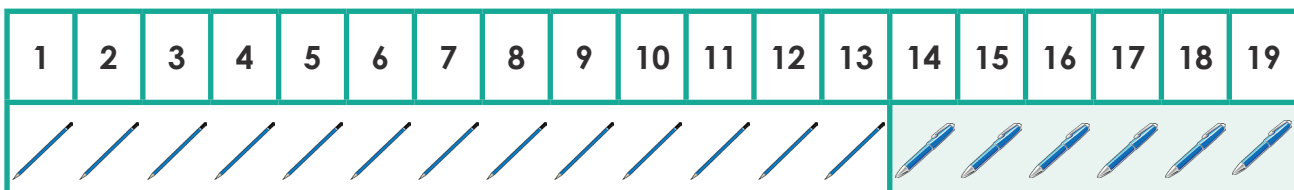
$$18 - 12 = 6$$

Kyle ate 6 lollies.

Question 2

Part-Part-Whole / Static

In a pencil case there were 13 pencils and the rest were pens. Altogether there were 19 items in the pencil case.
How many were pens?



Whole	
Part	Part Unknown

19	
13	6

$$13 + 6 = 19$$

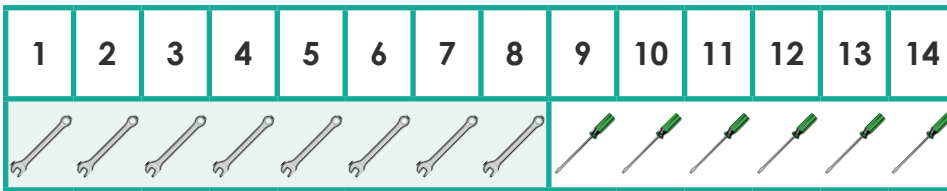
$$19 - 13 = 6$$

There were 6 pens.

Question 3

Part-Part-Whole / Static

Dad had some spanners in his toolbox and 6 screwdrivers. This made 14 tools altogether. *How many screwdrivers did he have?*



Whole	
Part Unknown	Part

14	
8	6

$$6 + 8 = 14$$

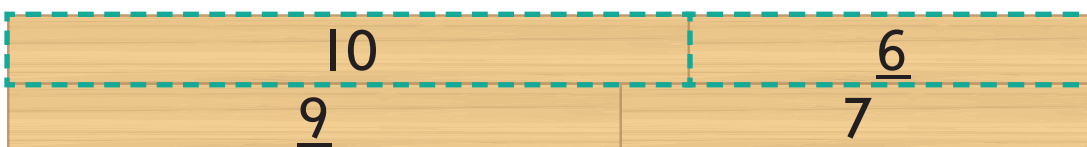
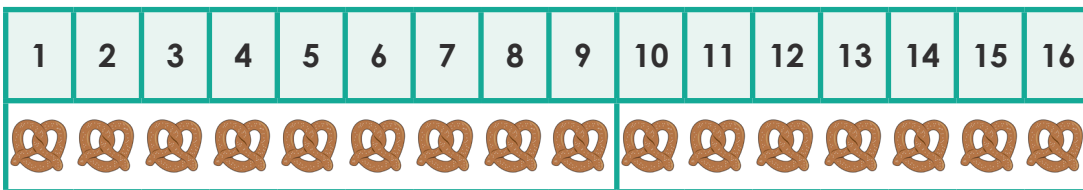
$$14 - 6 = 8$$

Dad had 8 spanners.

Question 4

Part-Part-Whole / Active

Mum bought a packet of pretzels for her children to eat after school. After the children had eaten 7 there were 9 left in the packet. *How many were there in the packet to start?*



Whole Unknown	
Part	Part

16	
9	7

$$9 + 7 = 16$$

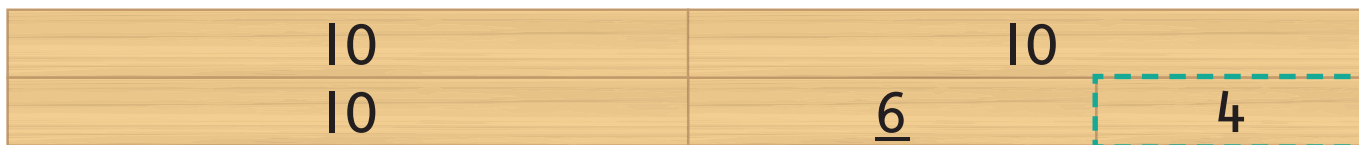
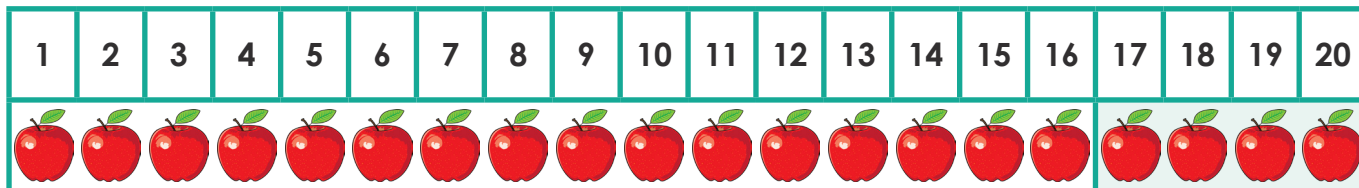
There were 16 pretzels in the packet to start with.

Question 5

Part-Part-Whole /Active

There were 20 apples on an apple tree. The farmer picked the ripest. This left 16 on the tree.

How many did the farmer pick?



Whole	
Part	Part Unknown

20	
16	4

$16 + 4 = 20$

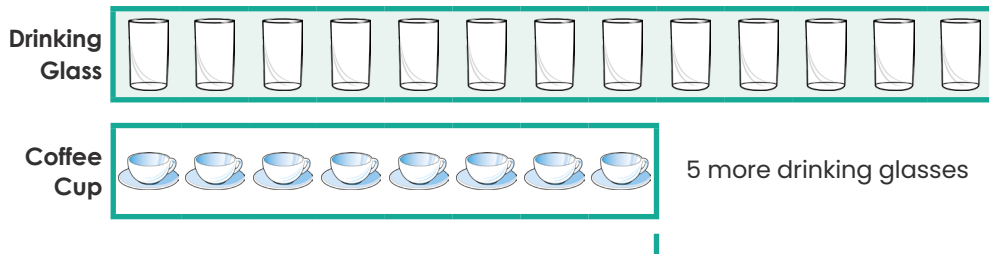
$20 - 16 = 4$

The farmer picked 4 apples.

Question 6

Comparison / Static

In the dishwasher there were some drinking glasses and 8 coffee cups. There were 5 more drinking glasses than coffee cups. How many drinking glasses were there?



Larger Quantity		13	
Smaller Quantity	Difference	8	5

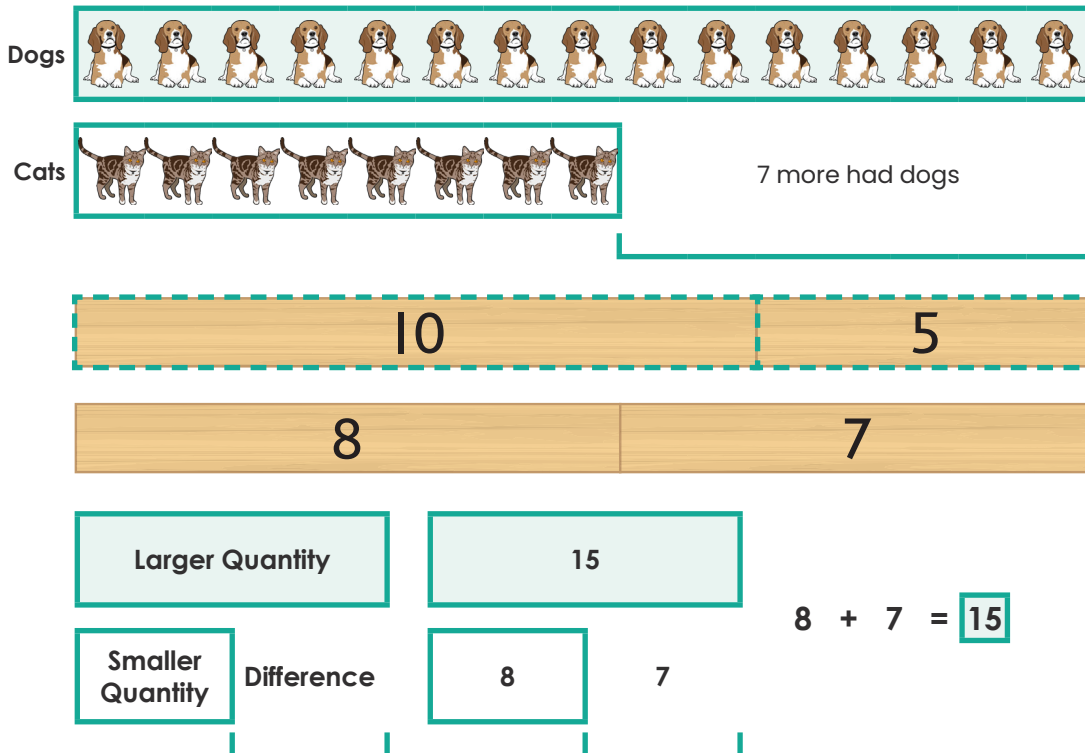
$8 + 5 = 13$

There were 13 drinking glasses.

Question 7

Comparison / Static

In a class 8 students had pet cats. Seven more than this had dogs. *How many of them had pet dogs?*



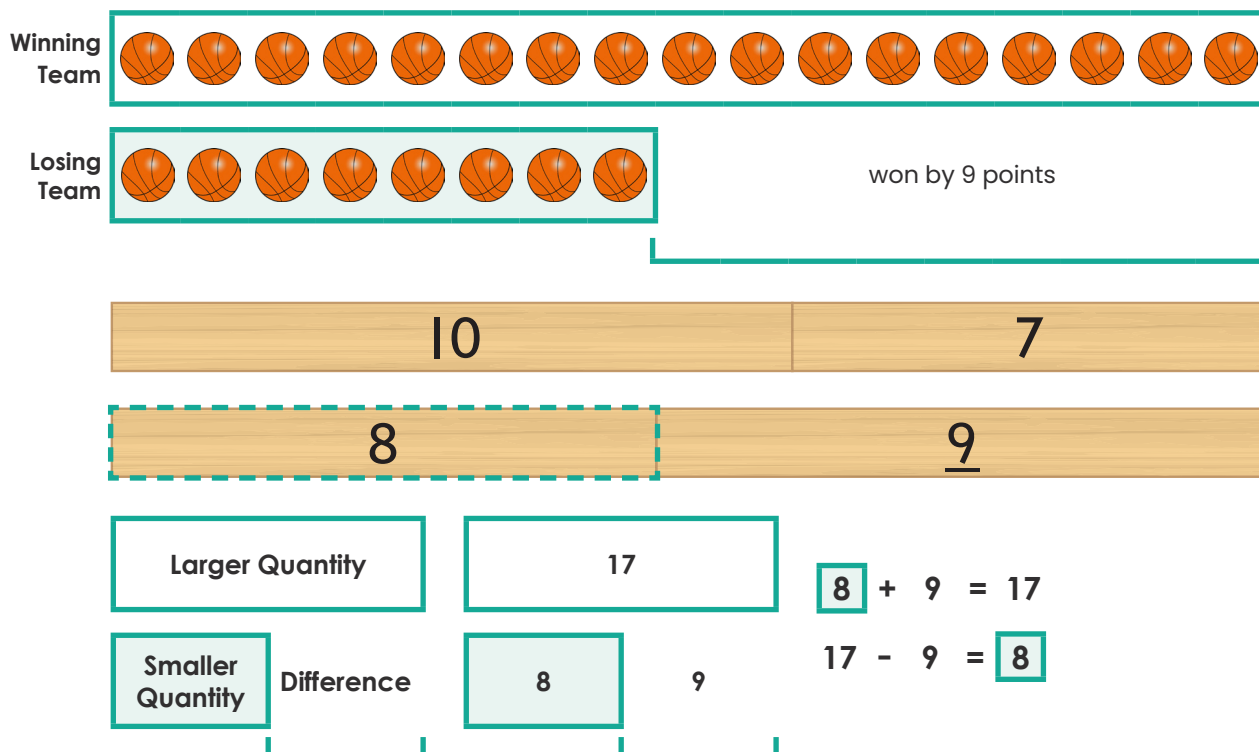
Fifteen children had pet dogs.

Question 8

Comparison / Active

In a basketball game the winning team scored 17 points. They won by 9 points.

How many points did the losing team score?



The losing team scored 8 points.


Question 9


Comparison / Active and Part-Part-Whole / Active


In a soccer game the losing team scored 6 goals. They lost by 7 goals. How many goals were kicked in the game?

Step 1: Calculate the number of goals scored by the winning team.

Comparison / Active

Winning Team 

Losing Team  lost by 7 goals



Larger Quantity	13
Smaller Quantity	6
Difference	7


$6 + 7 = 13$

The winning team scored 13 goals.

Step 2: Calculate the total number of goals kicked in the game.

Part-Part-Whole / Active

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



Whole Unknown		19	
Part	Part	13	6

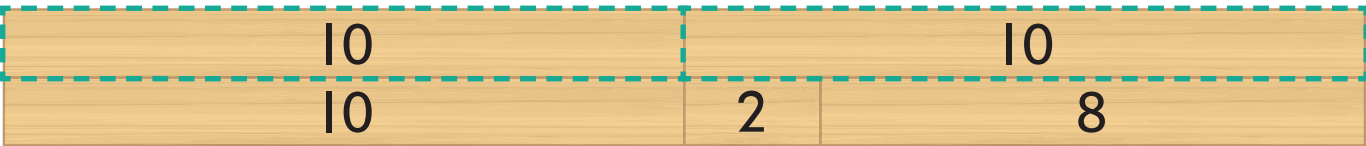
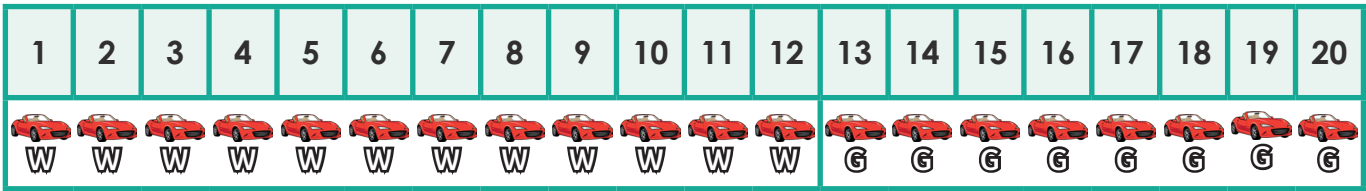
$13 + 6 = 19$

There was a total of 19 goals kicked during the game.

Question 10

Part-Part-Whole / Active

In the car park there was a long queue of cars waiting for a green traffic light. Eight cars got through the green light before it changed. This left 12 cars waiting. *How many cars were in the queue of cars before the green light?*



Whole Unknown	
Part	Part

20	
12	8

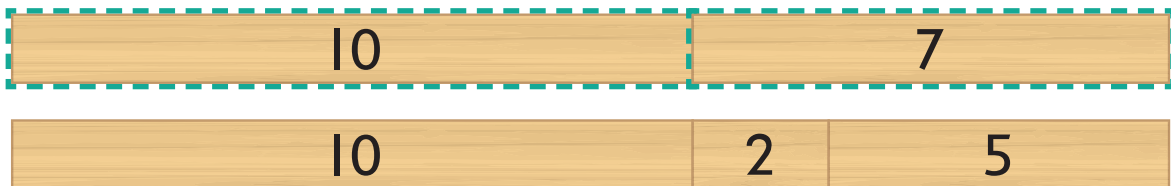
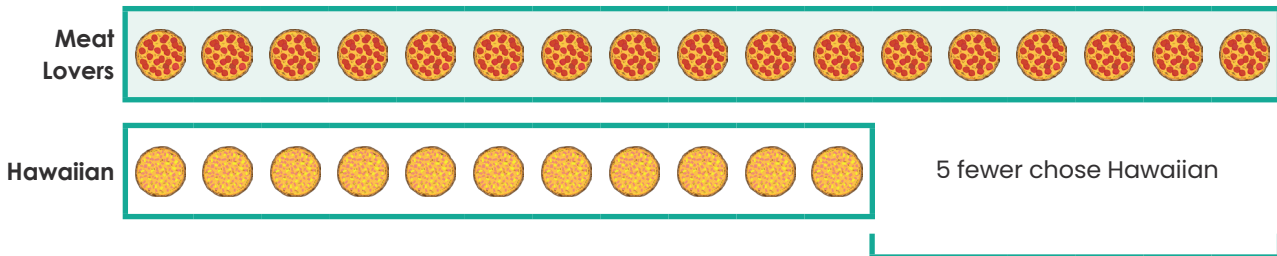
$12 + 8 = 20$

Twenty cars were in the car park before the green light.

Question 11

Comparison / Static

When ordering pizza, 12 people chose Hawaiian. This was 5 fewer than the number of people who chose Meat Lovers. *How many chose Meat Lovers?*



Larger Quantity

17

Smaller Quantity	Difference
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12	5
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$12 + 5 = 17$

17 people chose Meat Lovers.

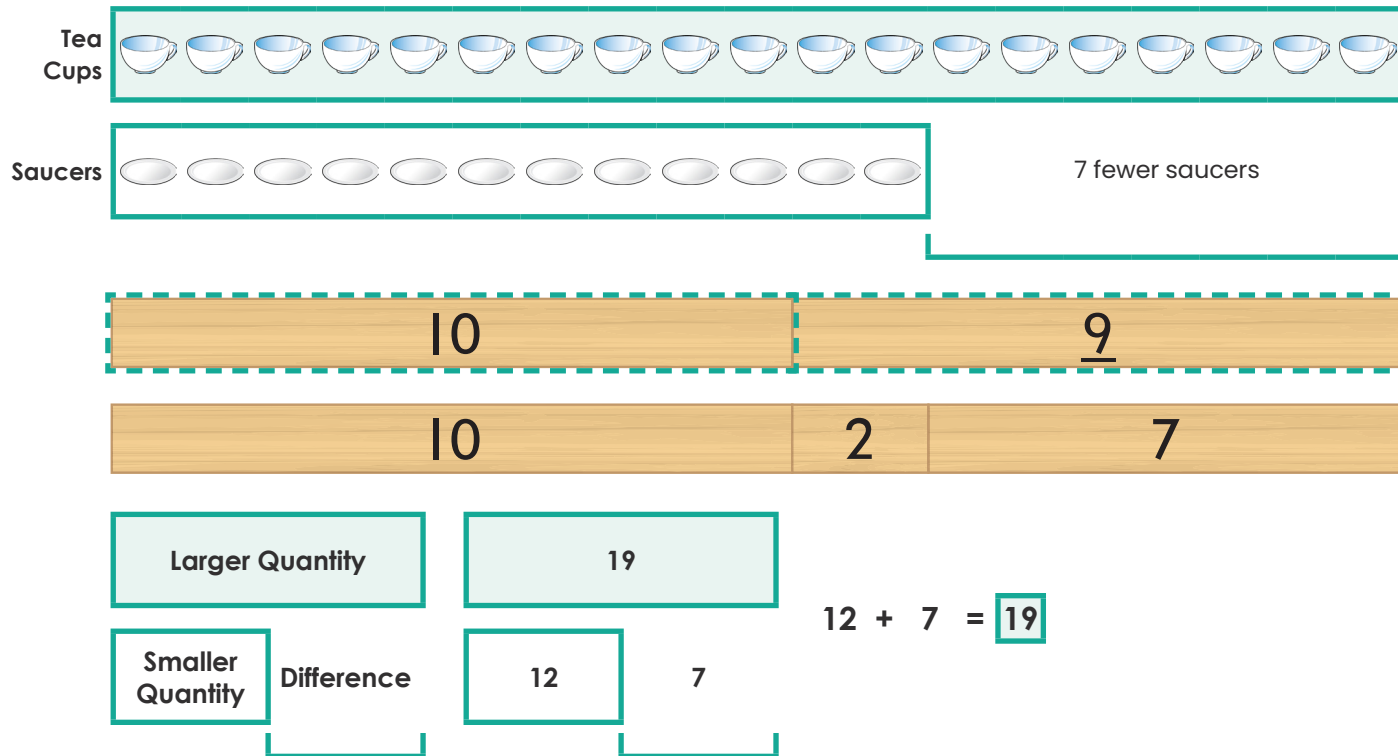
Question 12

Comparison / Active and Part-Part-Whole / Active

Melissa collected tea cups and saucers. When she matched the cups and saucers she found she had 7 fewer saucers. There were 12 saucers. Unfortunately whilst she was matching them she broke 3 tea cups. *How many tea cups did she end up with?*

Step 1: Calculate the number of tea cups.

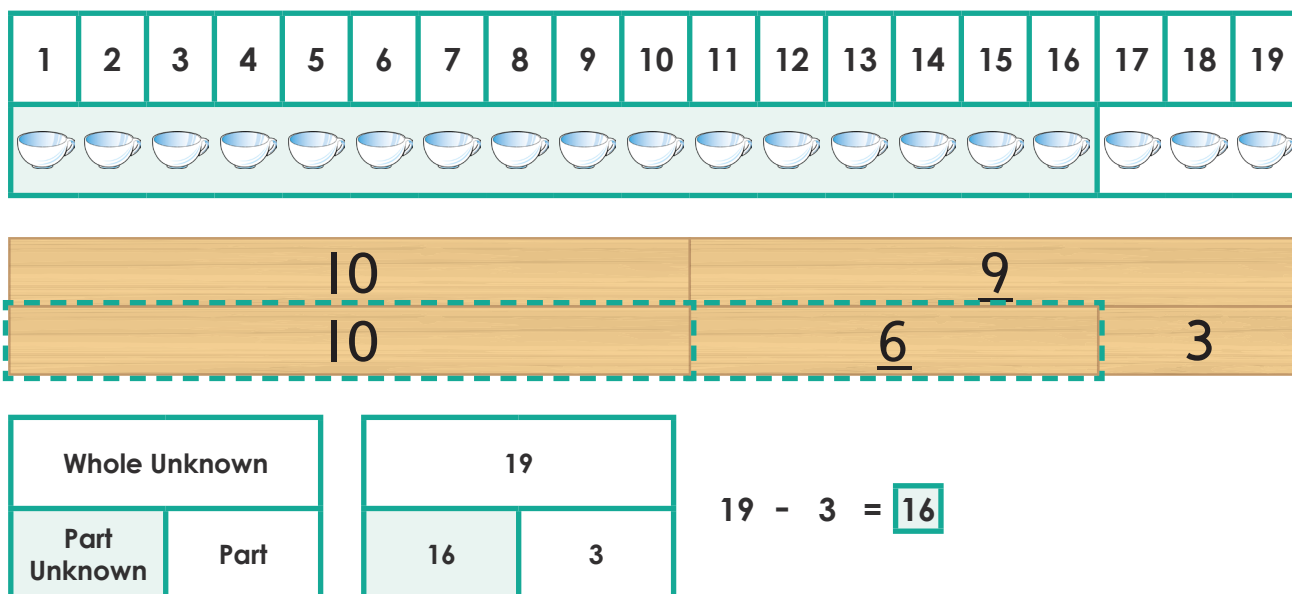
Comparison / Active



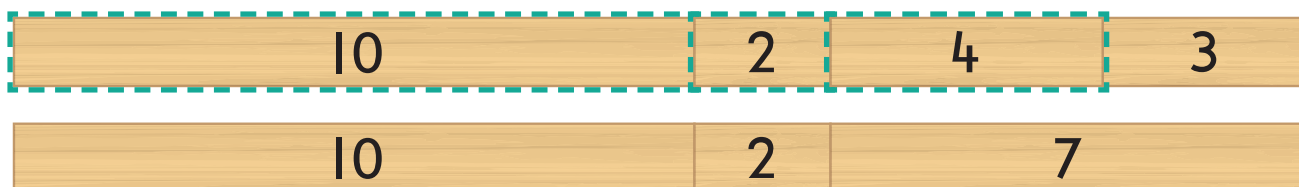
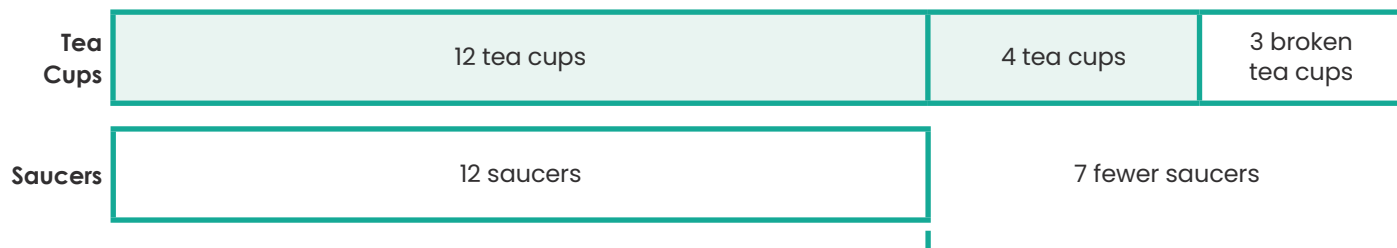
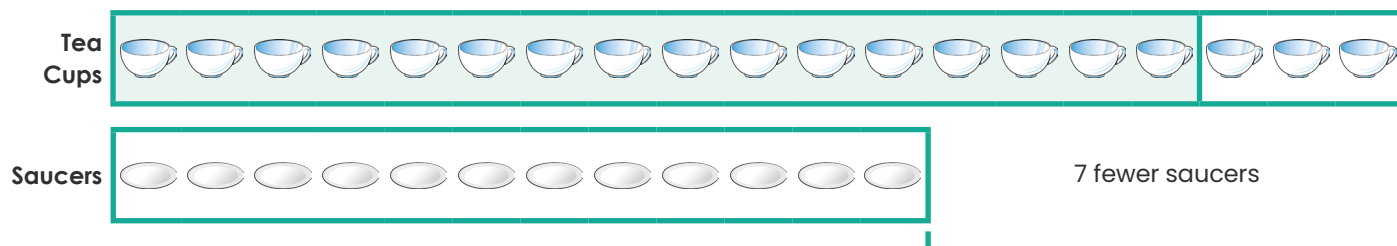
Melissa had 19 tea cups.

Step 2: Calculate the number of remaining tea cups after 3 were broken.

Part-Part-Whole / Active



Melissa had 16 tea cups remaining after 3 had been broken.

Alternate Solution

$$7 - 3 = 4$$

$$12 + 4 = 16$$

There were 16 tea cups remaining after 3 had been broken.

