Bond® Blocks
ANSWERS

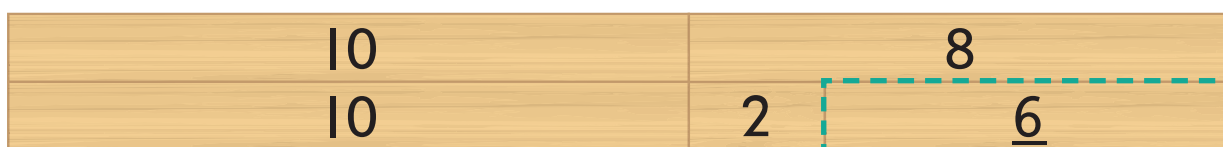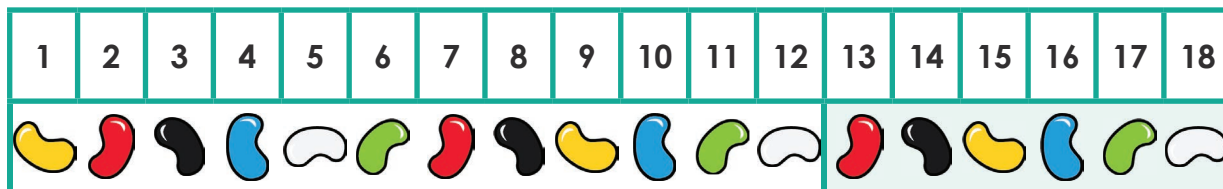## Question 1 — Part-Part-Whole / Active

Kyle ate some lollies from the packet. There were 12 left. Before Kyle started eating there were 18 lollies.

How many did he eat?

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

10		8	
10		2	6

Whole	
Part	Part Unknown

18	
12	6

$12 + \boxed{6} = 18$

$18 - \boxed{6} = 12$
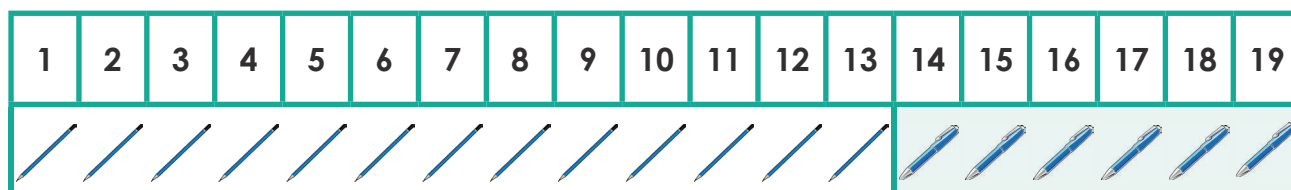
$18 - 12 = \boxed{6}$

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?

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

10		9	
10		3	6

Whole	
Part	Part Unknown

19	
13	6

$13 + \boxed{6} = 19$

$19 - 13 = \boxed{6}$
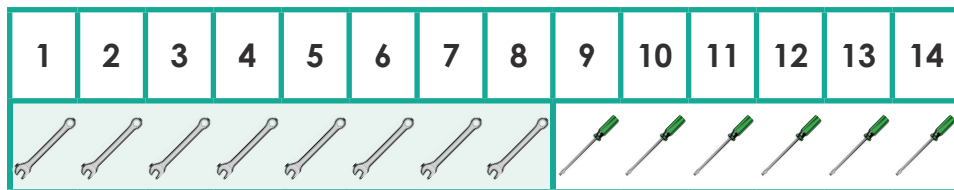
There were 6 pens.

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?*

1	2	3	4	5	6	7	8	9	10	11	12	13	14

10	4
8	6

Whole	
Part Unknown	Part

14	
8	6

$6 + \boxed{8} = 14$

$14 - 6 = \boxed{8}$

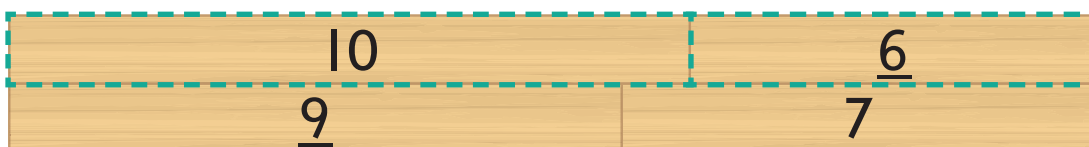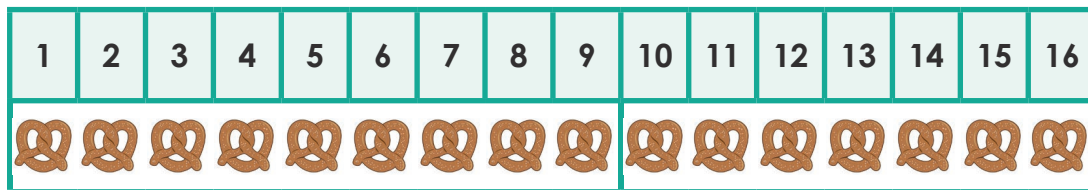**Dad had 8 spanners.**

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?*

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

10	6
9	7

Whole Unknown	
Part	Part

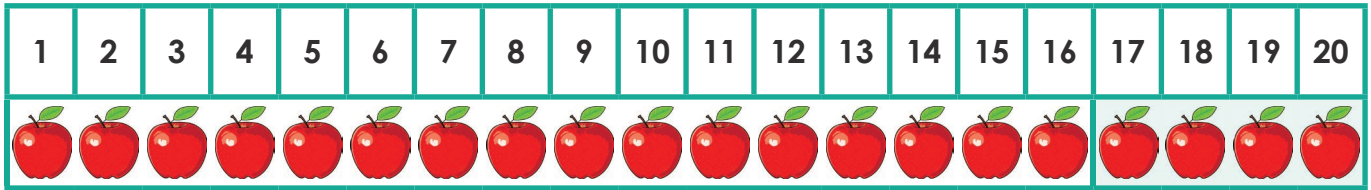| 16	
9	7

$9 + 7 = \boxed{16}$

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?

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

10	10
10	6	4

Whole	
Part	Part Unknown

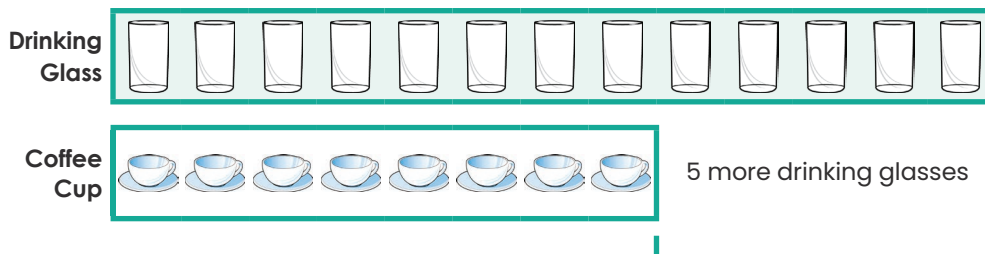| 20	
16	4

$16 + \boxed{4} = 20$

$20 - 16 = \boxed{4}$

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?*

Drinking Glass

Coffee Cup   5 more drinking glasses

10	3

8	5

Larger Quantity	
Smaller Quantity	Difference

13	
8	5

$8 + 5 = \boxed{13}$
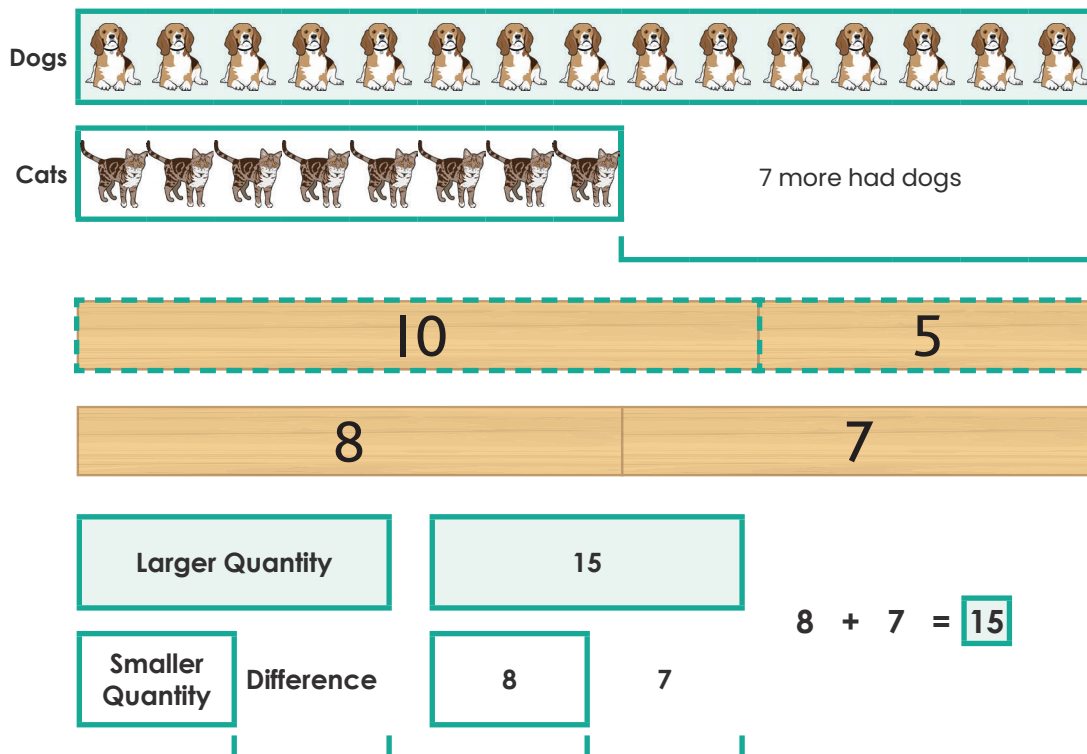
There were 13 drinking glasses.

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?*

Dogs

Cats

7 more had dogs

10	5

8	7

Larger Quantity	15

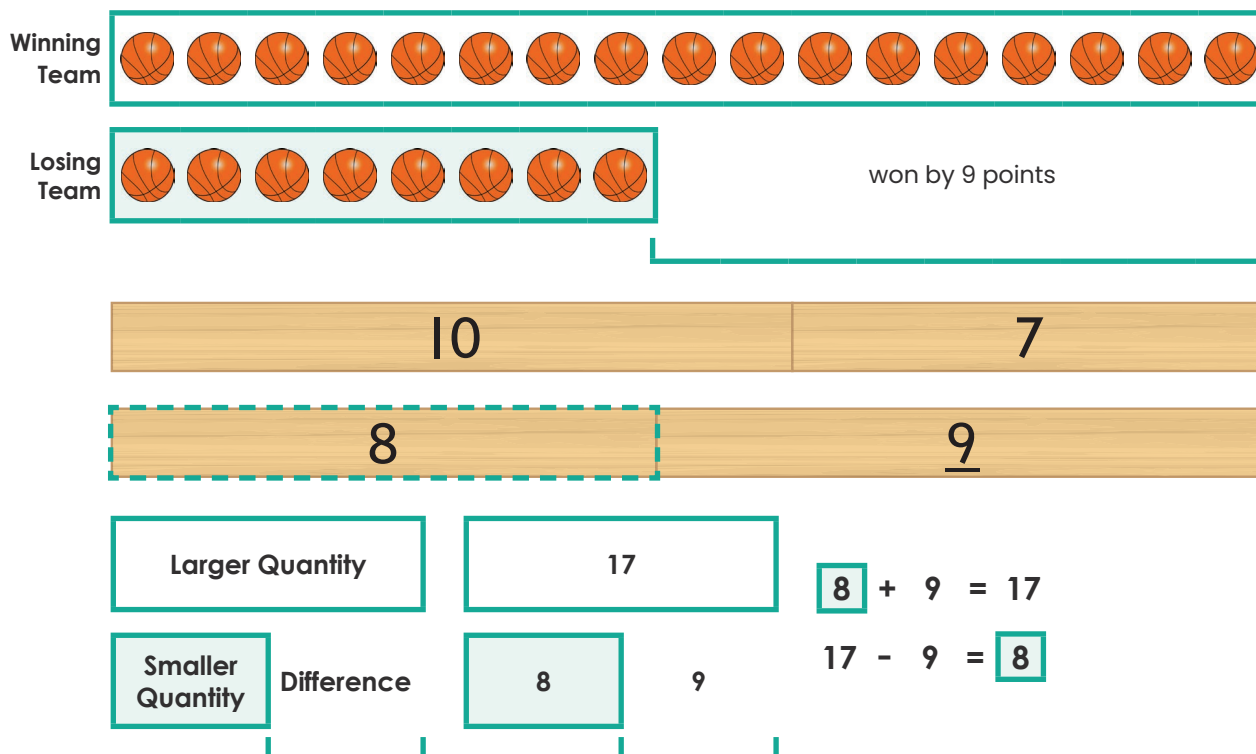| Smaller Quantity	Difference	8	7

$8 + 7 = \boxed{15}$

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?

Winning Team

Losing Team

won by 9 points

10	7

8	9

Larger Quantity	17

Smaller Quantity	Difference	8	9

$\boxed{8} + 9 = 17$

$17 - 9 = \boxed{8}$

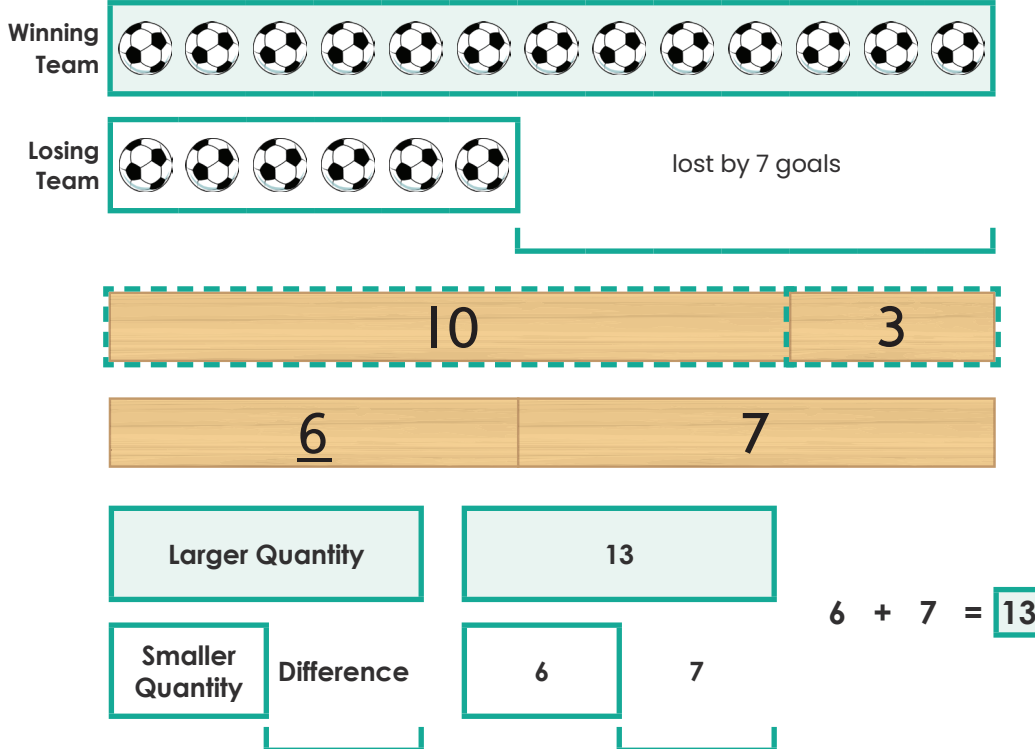**The losing team scored 8 points.**

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?*

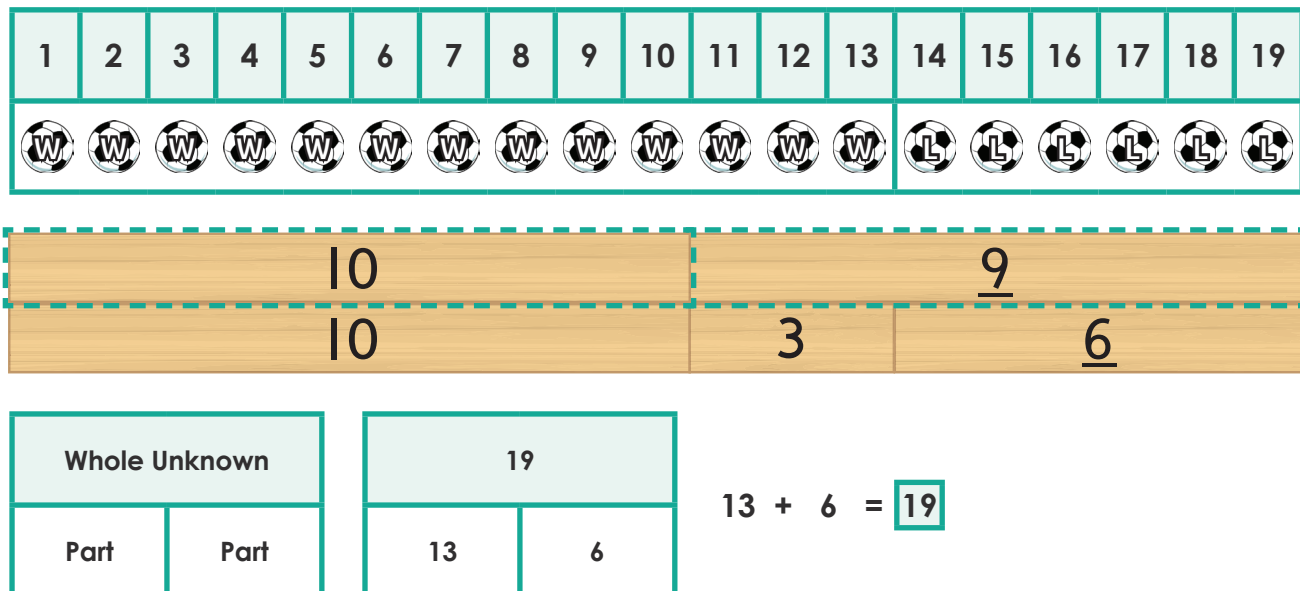**Step 1: Calculate the number of goals scored by the winning team.**   *Comparison / Active*

Winning Team ⚽⚽⚽⚽⚽⚽⚽⚽⚽⚽⚽⚽⚽

Losing Team ⚽⚽⚽⚽⚽⚽   lost by 7 goals

| 10 | 3 |

| 6 | 7 |

Larger Quantity		13
Smaller Quantity	Difference	6	7

$6 + 7 = \boxed{13}$

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
Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓦ	Ⓛ	Ⓛ	Ⓛ	Ⓛ	Ⓛ	Ⓛ

| 10 | 9 |

| 10 | 3 | 6 |

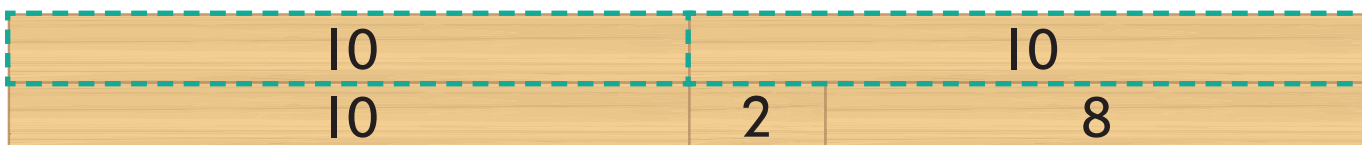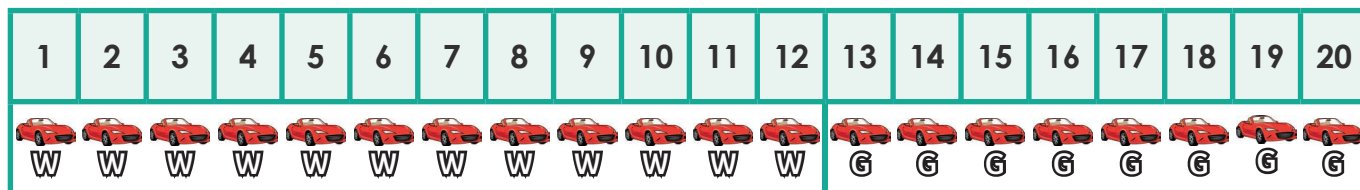| Whole Unknown		19	
Part	Part	13	6

$13 + 6 = \boxed{19}$

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?*

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

10	10

10	2	8

Whole Unknown	
Part	Part

20	
12	8

$12 + 8 = \boxed{20}$
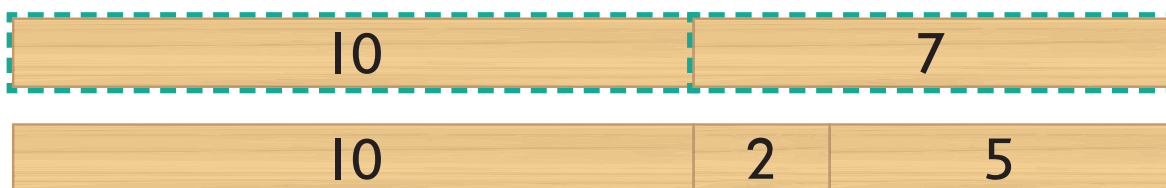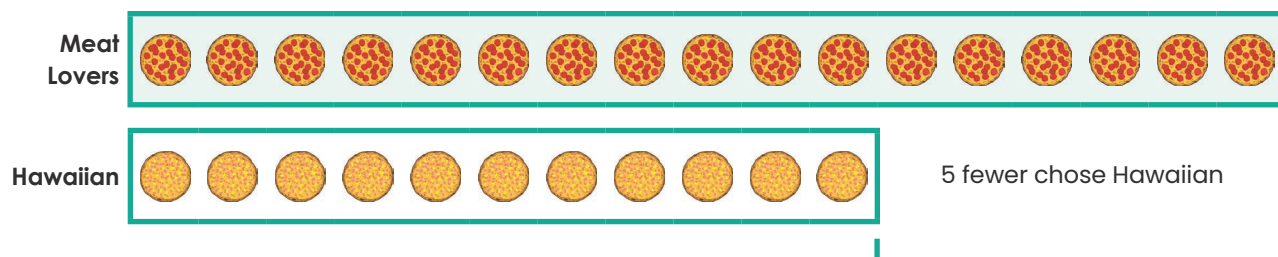
Twenty cars were in the car park before the green light.

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?*

Meat Lovers

Hawaiian

5 fewer chose Hawaiian

10	7

10	2	5

Larger Quantity	
Smaller Quantity	Difference

17	
12	5

$12 + 5 = \boxed{17}$

17 people chose Meat Lovers.

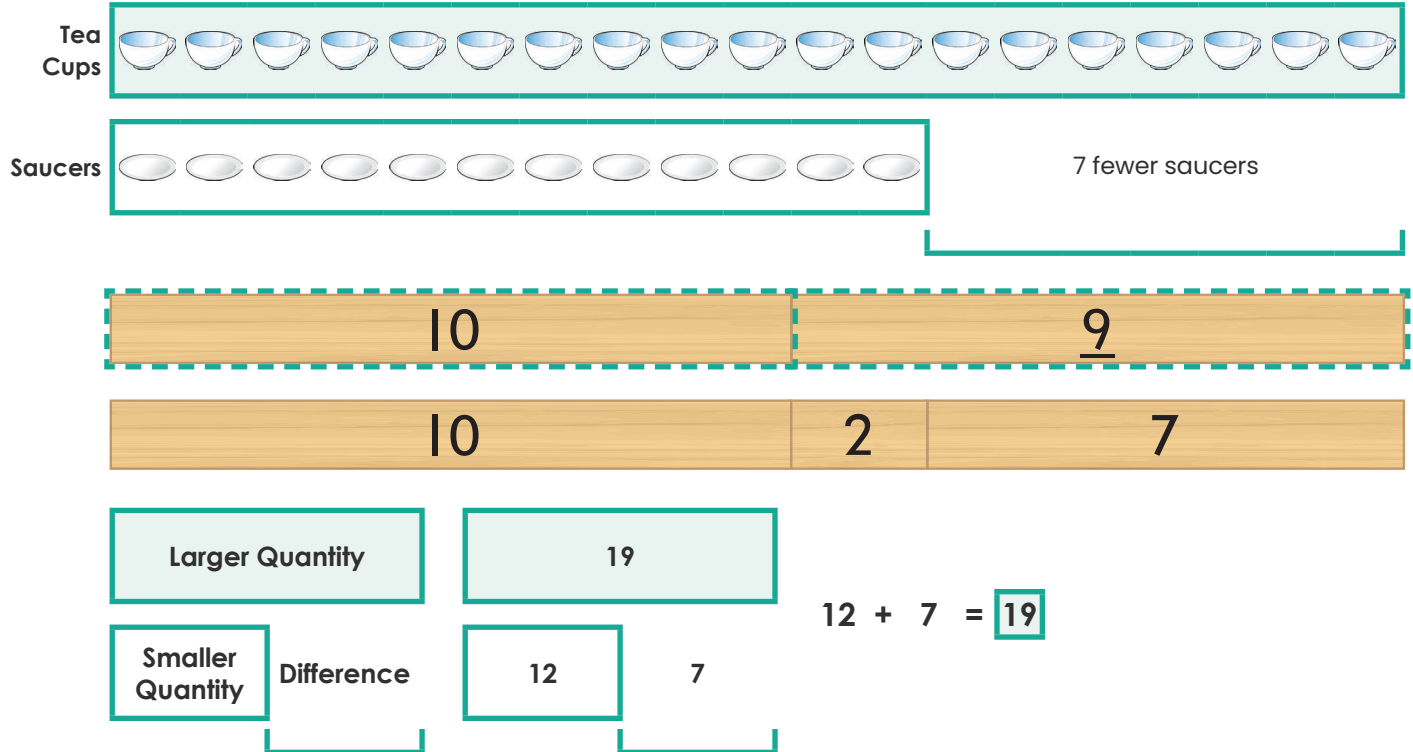**Question 12**   **Comparison / Active and Part-Part-Whole / Active**

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?*

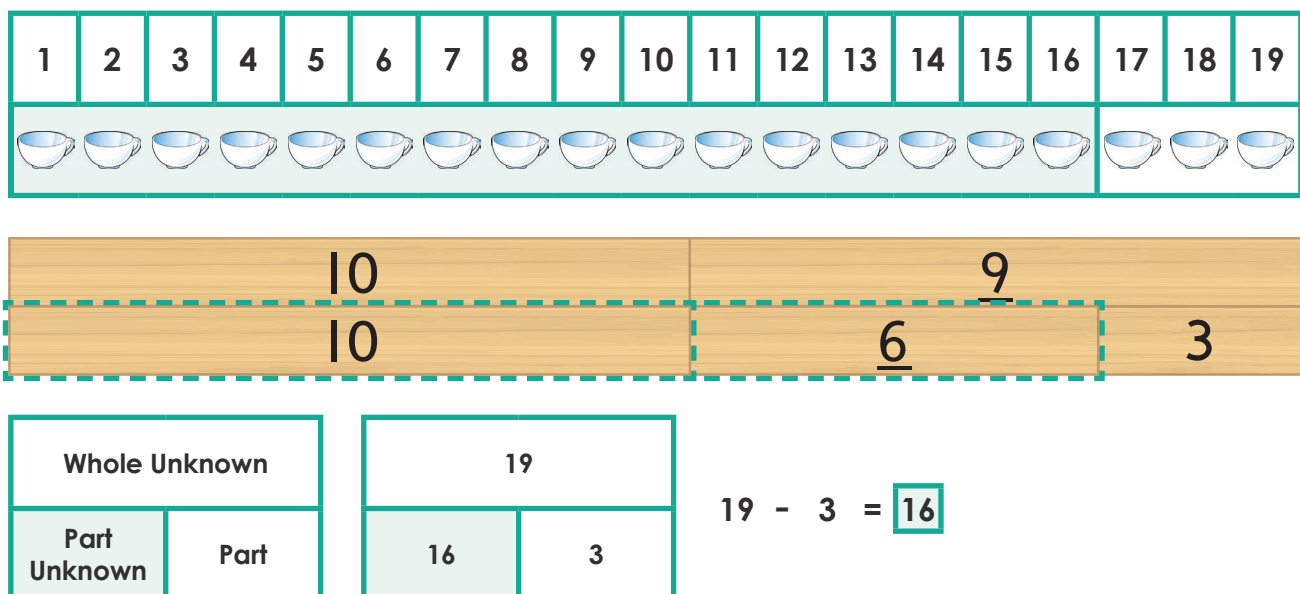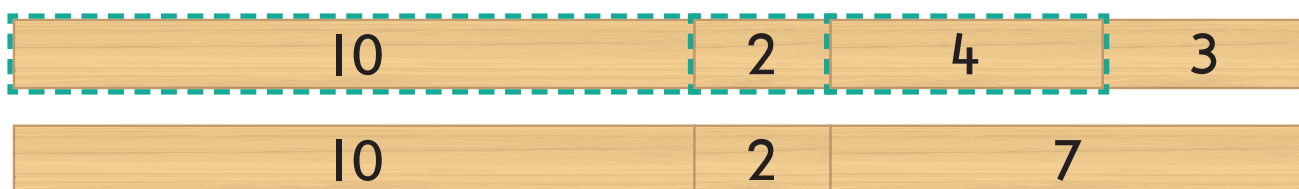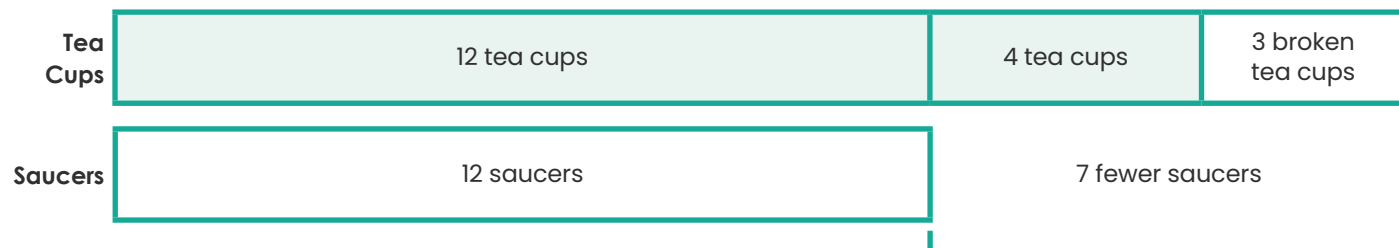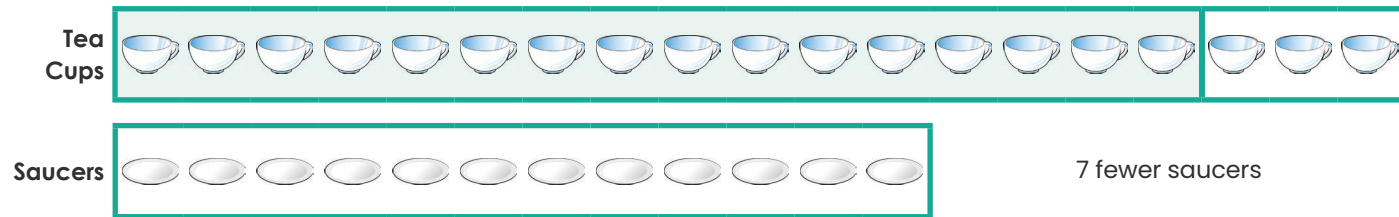*Step 1: Calculate the number of tea cups.*   *Comparison / Active*

Tea Cups

Saucers

7 fewer saucers

10	9

10	2	7

| Larger Quantity | 19 |

$12 + 7 = \boxed{19}$

| Smaller Quantity | Difference | 12 | 7 |

Melissa had 19 tea cups.

Step 2: Calculate the number of remaining tea cups after 3 were broken.   *Part-Part-Whole / Active*

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

10	9

10	6	3

| Whole Unknown | 19 |

$19 - 3 = \boxed{16}$

| Part Unknown | Part | 16 | 3 |

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

Alternate Solution

Tea Cups		

Saucers		7 fewer saucers

Tea Cups	12 tea cups	4 tea cups	3 broken tea cups

Saucers	12 saucers	7 fewer saucers

10	2	4	3

10	2	7

$7 - 3 = \boxed{4}$

$12 + 4 = \boxed{16}$

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