1 Complete the additions to match the ten frames.

a)
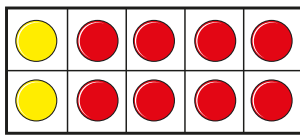
$$2 + 8 = 10$$
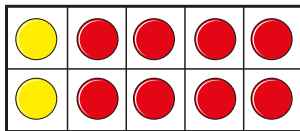
$$2 + 18 = 20$$
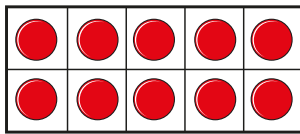
b)
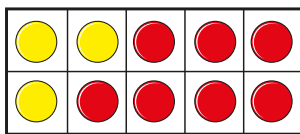
$$3 + 7 = 10$$
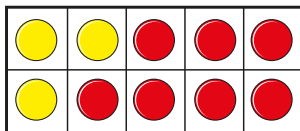
$$3 + 17 = 20$$
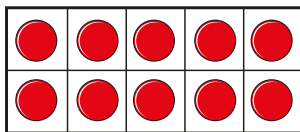
c) What do you notice?

2 Complete the number bonds.

a) 4 + 6 = **10**

4 + 16 = **20**

b) 5 + 5 = **10**

5 + 15 = **20**

c) 10 = **9** + 1

20 = **19** + 1

d) 10 = 3 + **7**

20 = **7** + 13

3 Complete the bar models.

a)

| 20 |
| 8 | **12** |

c)

| 4 | **16** |
| 20 |

b)

| 20 |
| 17 | **3** |

d)

| **10** | **10** |
| 20 |
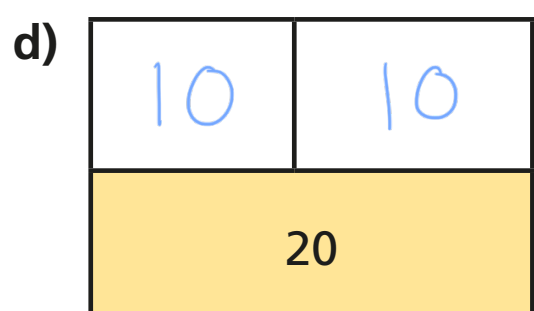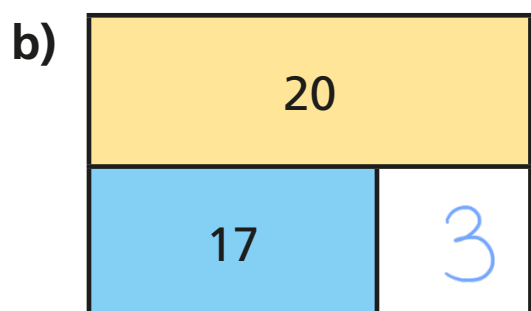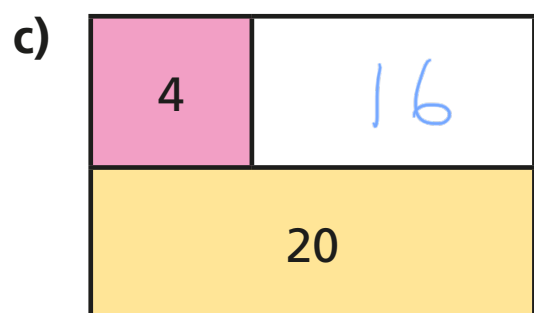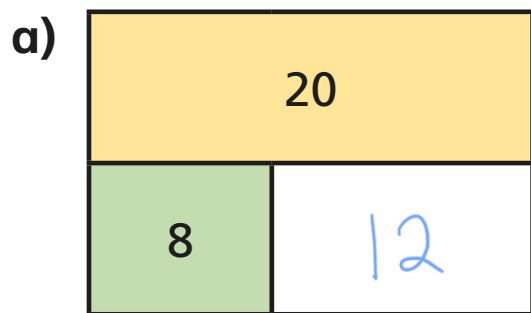
4 Colour all the number bonds to 20

14 + 3	17 + 3	2 + 18	0 + 20	3 + 16	9 + 11	17 + 3	18 + 2	2 + 0
18 + 1	3 + 7	12 + 7	5 + 15	4 + 8	1 + 19	13 + 5	20 + 0	1 + 15
11 + 8	11 + 9	19 + 1	3 + 17	10 + 0	13 + 7	16 + 2	8 + 12	5 + 5
5 + 6	4 + 16	19 + 0	10 + 1	2 + 0	14 + 6	17 + 1	11 + 9	11 + 8
12 + 5	12 + 8	18 + 2	15 + 5	4 + 15	16 + 4	10 + 10	15 + 5	13 + 3

Make your own puzzle like this.

1 Look at the picture.
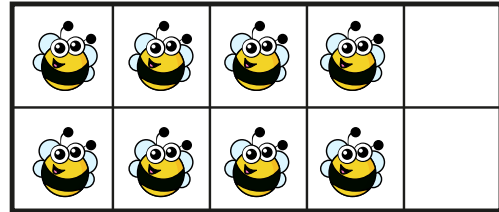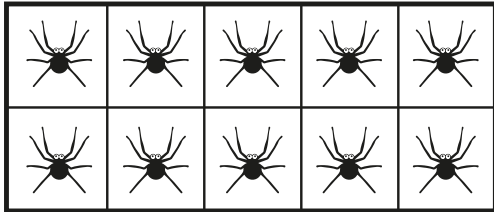
Complete the part-whole model and fact family.

18

10   8
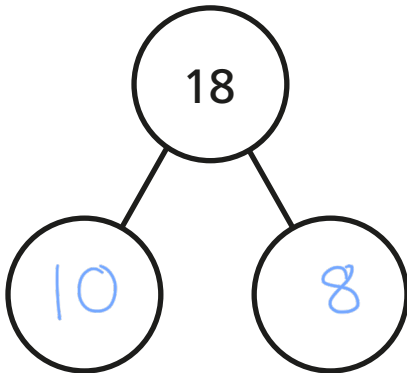
$10 + 8 = 18$

$8 + 10 = 18$

$18 - 10 = 8$
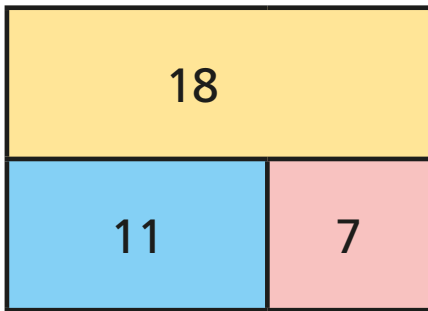
$18 - 8 = 10$

Can you write each number sentence a different way?
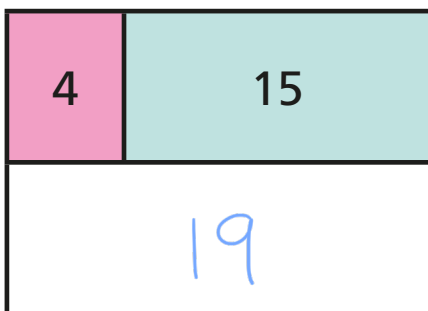
2 Complete the fact family for each bar model.

a)

18	
11	7

$\boxed{11} + \boxed{7} = \boxed{18}$

$\boxed{7} + \boxed{11} = \boxed{18}$

$\boxed{18} - \boxed{7} = \boxed{11}$

$\boxed{18} - \boxed{11} = \boxed{7}$

b)

4	15
19	

$\boxed{19} = \boxed{4} + \boxed{15}$

$\boxed{19} = \boxed{15} + \boxed{4}$

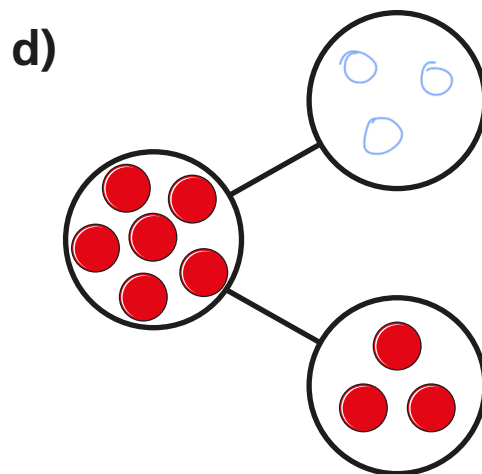$\boxed{15} = \boxed{19} - \boxed{4}$
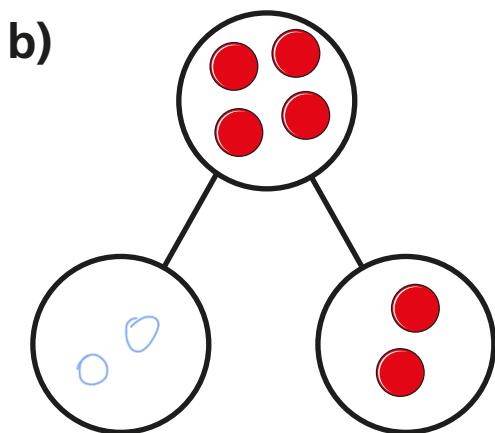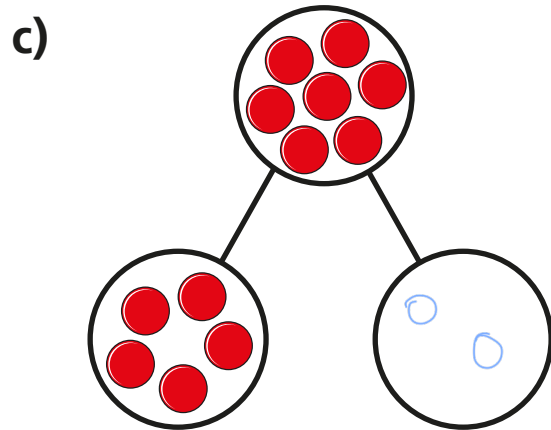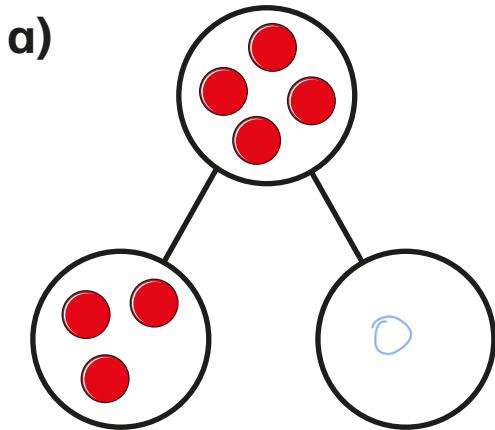
$\boxed{4} = \boxed{19} - \boxed{15}$

c) Draw your own bar models.
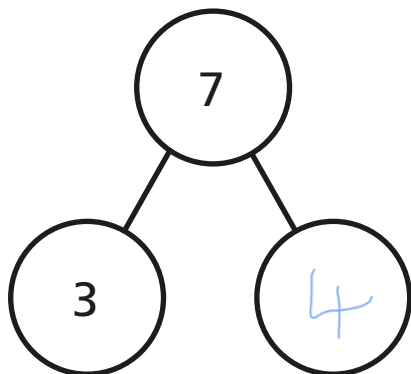
Ask a partner to write the fact family to match.

1 Draw counters to complete the part-whole models.

a)

c)

b)

d)

2 Complete the part-whole models.
Complete the sentences.

a)

7

3   4

The whole is **7**

3 is a part.

4 is a part.

b)
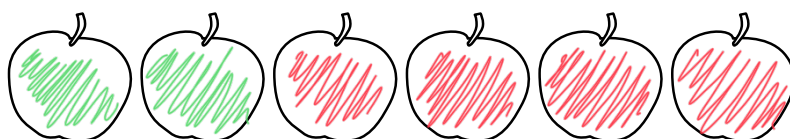
10

10   0
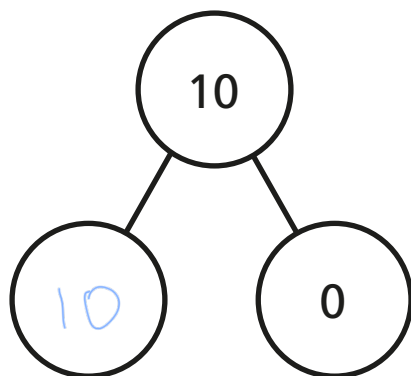
The whole is **10**

10 is a part.

0 is a part.

3 There are 6 apples in total.

2 apples are green.
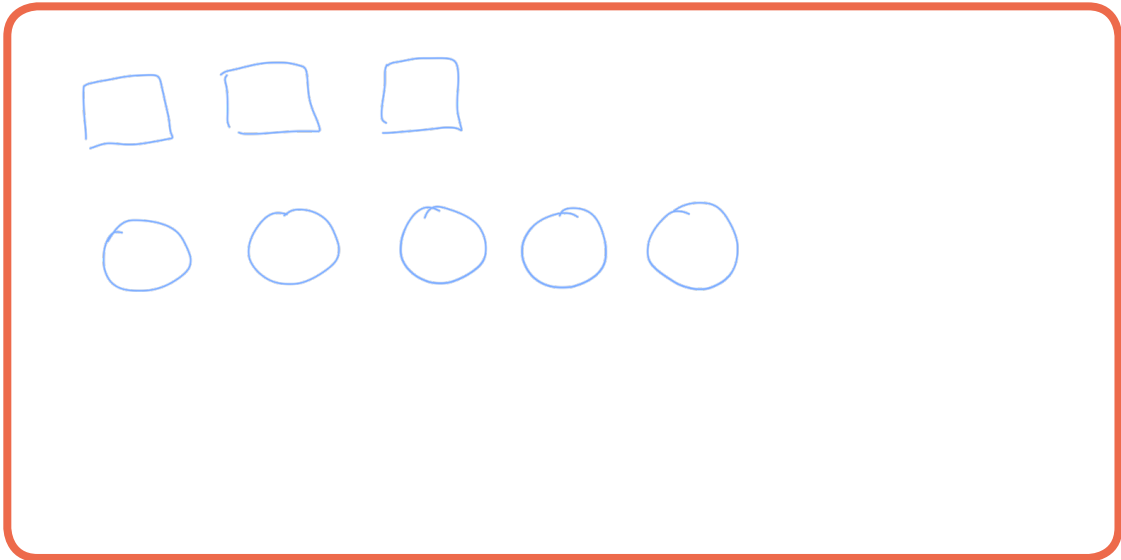
The rest are red.

Colour the apples.

Complete the number sentence. 2 + **4** = 6

4 There are 8 shapes in total.

3 of the shapes are squares.

The rest are circles.

Draw a picture to show this.

How many circles are there? | 5 |

Complete the number sentence.

| 3 | + | 5 | = | 8 |

5 Complete the number sentences.

4 + | 1 | = 5

4 + | 0 | = 4

| 3 | + 1 = 4
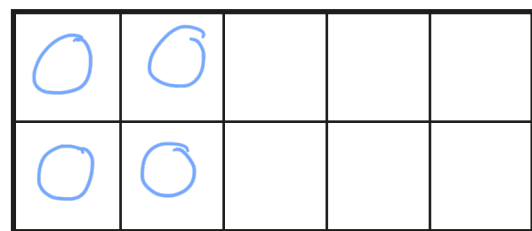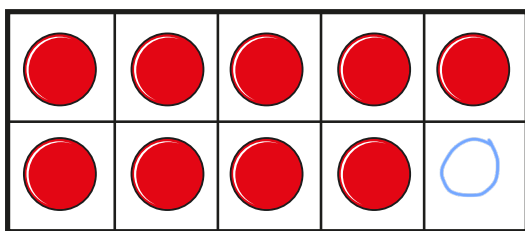
5 = | 1 | + 4

1 There are 9 children on the bus.

5 more children get on the bus.
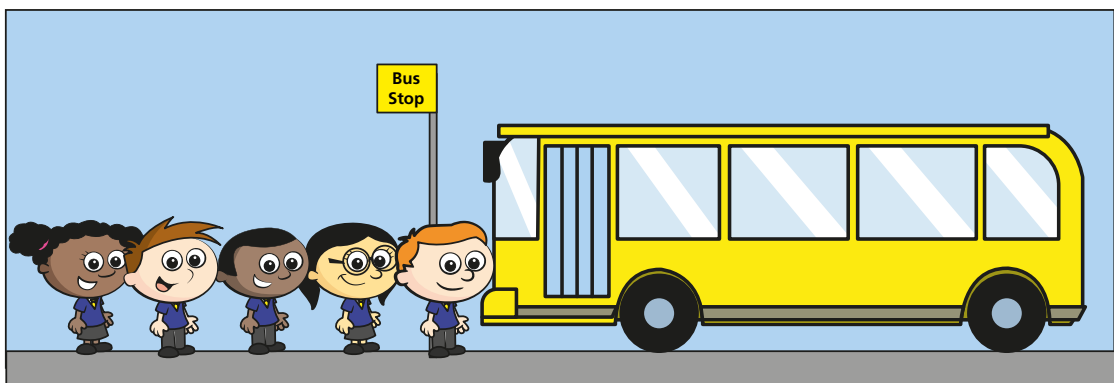
How many children are on the bus now?

Complete the ten frames and the sentences.

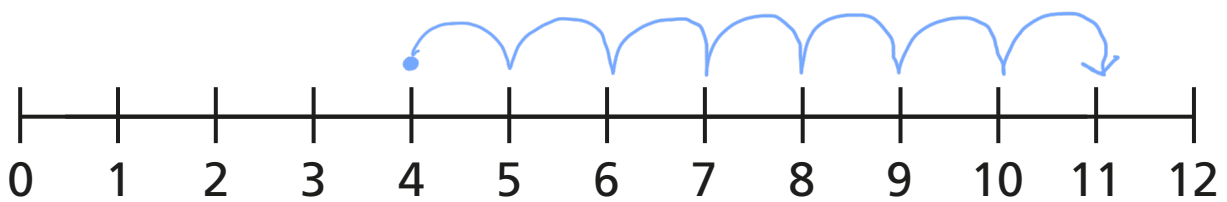$$9 + 5 = 14$$

There are $\boxed{14}$ children on the bus now.

2 Eva has 4 coins.

Jack gives her 7 more coins.

How many coins does Eva have now?
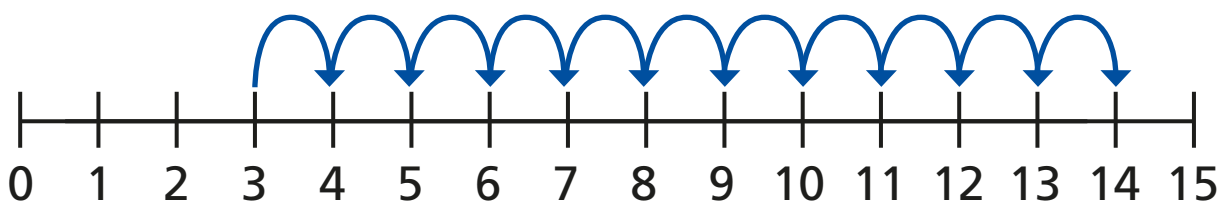
Draw on the number line and complete the sentences.

$$\begin{array}{ccccccccccccc} | & | & | & | & | & | & | & | & | & | & | & | & | \\ 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 \end{array}$$

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

Eva has $\boxed{11}$ coins now.

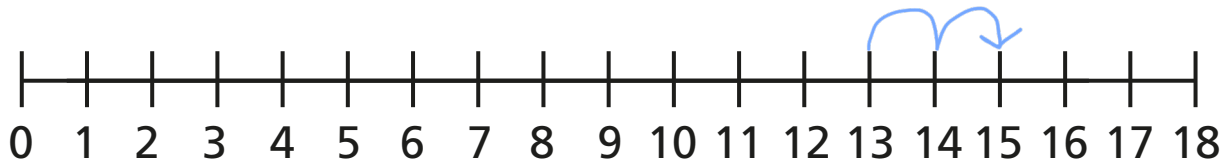**3** Ron and Mo are working out 3 + 11 on a number line.

Ron's method

$$\begin{array}{cccccccccccccccc} | & | & | & | & | & | & | & | & | & | & | & | & | & | & | & | \\ 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 & 11 & 12 & 13 & 14 & 15 \end{array}$$

Mo's method

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
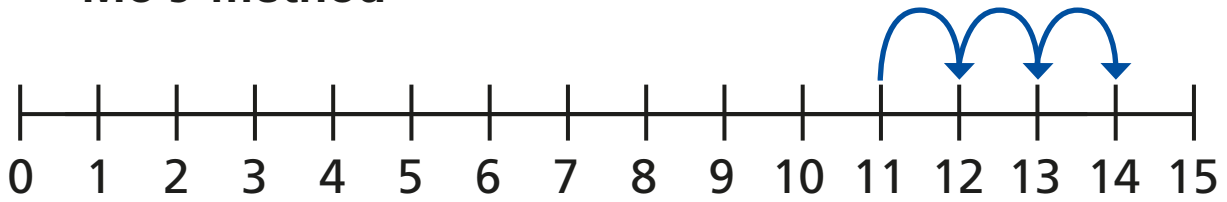
What is the same and what is different?

Use the number lines to work out the additions.

a) 2 + 13 = | 15 |

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

b) 4 + 9 = | 13 |

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

c) 1 + 17 = | 18 |

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18