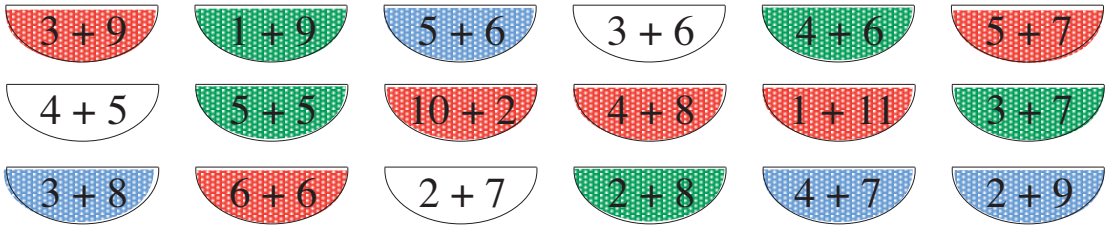


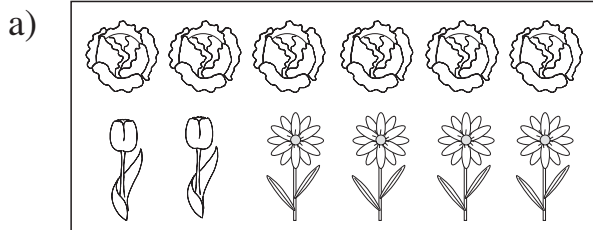
1

Colour the shapes as shown: $\text{R} = 12$, $\text{B} = 11$, $\text{G} = 10$

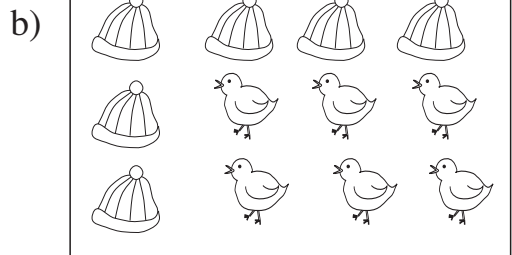


2

Write equations about the pictures.



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | + | 2 | + | 4 | = | 1 | 2 |
| 1 | 2 | - | 6 | = | 6 | | |
| 1 | 2 | - | 2 | = | 1 | 0 | |
| 1 | 2 | - | 4 | = | 8 | | |
| 2 | + | 4 | + | 6 | = | 1 | 2 |
| 4 | + | 2 | + | 6 | = | 1 | 2 |



| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | + | 6 | = | 1 | 2 | | |
| 4 | + | 4 | + | 4 | = | 1 | 2 |
| 4 | + | 2 | + | 6 | = | 1 | 2 |
| 1 | 2 | - | 6 | = | 6 | | |
| 2 | + | 4 | + | 6 | = | 1 | 2 |
| 6 | + | 2 | + | 4 | = | 1 | 2 |

3

Find the shapes in the grids. Fill in the missing numbers which sum to 12.

a)

| | | | |
|---|---|---|---|
| 3 | 3 | 1 | 5 |
| 3 | 4 | 2 | 5 |
| 3 | 4 | 3 | 1 |
| 2 | 2 | 4 | 3 |

| | | | |
|---|---|---|---|
| 3 | 3 | 1 | 5 |
| 3 | | | 5 |
| 3 | 4 | 2 | 1 |
| | 4 | 3 | |
| 2 | 2 | 4 | 3 |

= 12

b)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8 | 3 | 4 | 7 | 9 | 4 | 8 | 2 | 6 | 0 |
| 7 | 2 | 3 | 2 | 4 | 0 | 5 | 1 | 6 | 1 |
| 0 | 6 | 1 | 2 | 1 | 0 | 8 | 5 | 9 | 1 |
| 6 | 8 | 5 | 8 | 7 | 8 | 3 | 2 | 0 | 1 |
| 3 | 5 | 0 | 0 | 9 | 8 | 3 | 3 | 3 | 0 |
| 0 | 5 | 2 | 6 | 5 | 3 | 0 | 4 | 1 | 2 |

| | | | | |
|---|---|---|---|---|
| 3 | | | 5 | |
| 2 | 3 | 2 | 5 | 2 |
| | | 2 | | |
| | | | 4 | 8 |
| 3 | | | | |
| 3 | 3 | 3 | | |
| | | | 6 | |
| | | | 6 | |

= 12

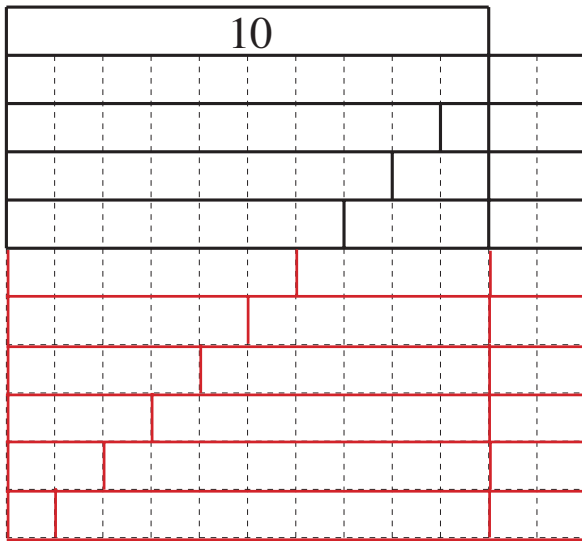
4

Fill in the missing numbers.

- a) $4 + 7 = \begin{array}{|c|c|} \hline 1 & 1 \\ \hline \end{array}$ b) $12 - 10 = \begin{array}{|c|} \hline 2 \\ \hline \end{array}$ c) $6 + 4 = \begin{array}{|c|c|} \hline 1 & 0 \\ \hline \end{array}$
- d) $3 + 9 = \begin{array}{|c|c|} \hline 1 & 2 \\ \hline \end{array}$ e) $12 - 9 = \begin{array}{|c|} \hline 3 \\ \hline \end{array}$ f) $6 + 6 = \begin{array}{|c|c|} \hline 1 & 2 \\ \hline \end{array}$

1

Continue drawing the number strips to make 12. Write down the additions.

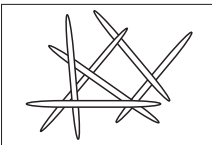
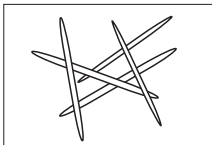
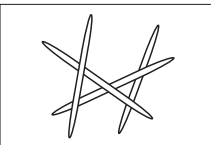
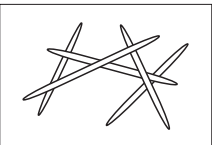


| |
|---------------------------|
| $10 + 2 = 12$ |
| $9 + 1 + 2 = 9 + 3 = 12$ |
| $8 + 2 + 2 = 8 + 4 = 12$ |
| $7 + 3 + 2 = 7 + 5 = 12$ |
| $6 + 4 + 2 = 6 + 6 = 12$ |
| $5 + 5 + 2 = 5 + 7 = 12$ |
| $4 + 6 + 2 = 4 + 8 = 12$ |
| $3 + 7 + 2 = 3 + 9 = 12$ |
| $2 + 8 + 2 = 2 + 10 = 12$ |
| $1 + 9 + 2 = 1 + 11 = 12$ |

2

There were 12 sticks on the table. Who took most? Who took least? Write an equation for each girl. Put the correct sign between the pictures.

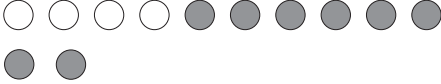
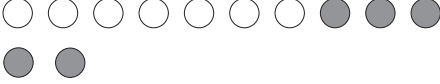
Peggy $12 - 5 = 7$ Sue $12 - 5 = 7$

 $>$  $>$  $<$ 

$12 - 6 = 6$ Anne $12 - 4 = 8$ Sarah

3

Fill in the missing numbers.

a)  b) 

$4 + 8 = 12$ $12 - 4 = 8$ $7 + 5 = 12$ $12 - 7 = 5$

$8 + 4 = 12$ $12 - 8 = 4$ $5 + 7 = 12$ $12 - 5 = 7$

4

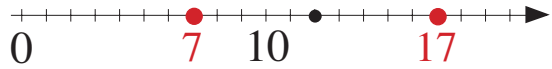
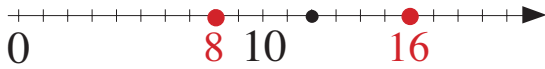
Continue the pattern.

11 eleven 11 eleven **11 eleven 11 eleven 11 eleven 11 eleven**

12 twelve 12 twelve **12 twelve 12 twelve 12 twelve 12 twelve**

1

Fill in the missing numbers. Mark them on the number line.



| | | | | | | | |
|--|---|----------------|---|---|----------------|---|---|
| | 8 | < ⁴ | 1 | 2 | < ⁴ | 1 | 6 |
|--|---|----------------|---|---|----------------|---|---|

| | | | | | | | |
|--|---|----------------|---|---|----------------|---|---|
| | 7 | < ⁵ | 1 | 2 | < ⁵ | 1 | 7 |
|--|---|----------------|---|---|----------------|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | + | 4 | = | 1 | 6 |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 2 | + | 5 | = | 1 | 7 |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 6 | - | 4 | = | 1 | 2 |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | 7 | - | 5 | = | 1 | 2 |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|--|
| 1 | 2 | - | 4 | = | 8 | |
|---|---|---|---|---|---|--|

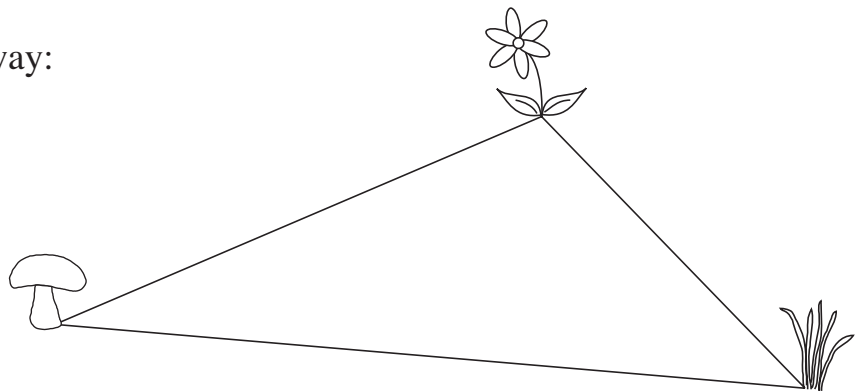
| | | | | | | |
|---|---|---|---|---|---|--|
| 1 | 2 | - | 5 | = | 7 | |
|---|---|---|---|---|---|--|

| | | | | | | |
|--|---|---|---|---|---|---|
| | 8 | + | 4 | = | 1 | 2 |
|--|---|---|---|---|---|---|

| | | | | | | |
|--|---|---|---|---|---|---|
| | 7 | + | 5 | = | 1 | 2 |
|--|---|---|---|---|---|---|

2

Measure how far away:



- a) the grass is from the flower

| | |
|--|---|
| | 5 |
|--|---|

 cm
- b) the mushroom is from the grass

| | |
|---|---|
| 1 | 0 |
|---|---|

 cm
- c) the flower is from the mushroom.

| | |
|--|---|
| | 7 |
|--|---|

 cm

3

Fill in the missing numbers.

- a) $9 + \boxed{1} = 10$
- b) $12 - 3 = \boxed{9}$
- c) $11 - 6 = \boxed{5}$
- d) $\boxed{20} - 8 = 12$
- e) $9 + \boxed{3} = 12$
- f) $\boxed{12} - 11 = 1$
- g) $12 - 6 = \boxed{6}$
- h) $20 - 12 = \boxed{8}$

4

Complete the table.

| | | | | | | | | | | | | | | |
|--------------|----------|----|----|----|---|---|---|---|---|---|---|----|----|----|
| $a + b = 12$ | a | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | b | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |

1

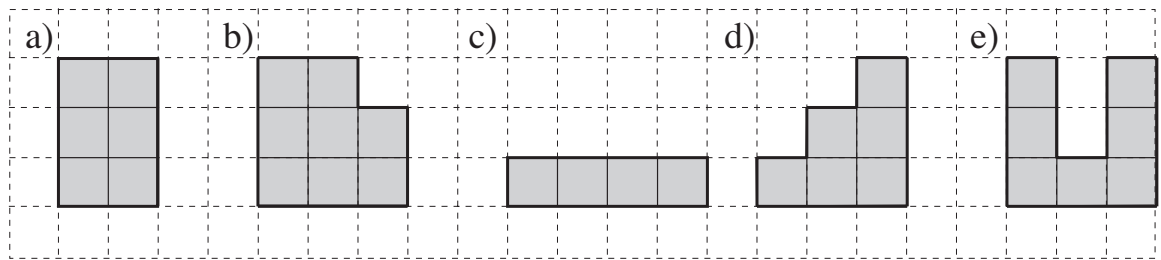
Continue the colouring pattern.



2

Write down the number of sticks you need to **enclose** each shape. —

Write down the number of squares you need to **cover** each shape. □



10. sticks

12. sticks

10. sticks

12. sticks

16. sticks

6. squares

8. squares

4. squares

6. squares

7. squares

3

Fill in the missing numbers.

$$12 = 3 + 7 + \boxed{2}$$

$$3 = 12 - 8 - \boxed{1}$$

$$12 = 20 - \boxed{6} - 2$$

$$\boxed{1} \boxed{0} = 7 + 2 + 1$$

$$6 = \boxed{12} - 3 - 3$$

$$\boxed{4} = 20 - 8 - 8$$

$$\boxed{1} \boxed{0} = 12 + 6 - 8$$

$$4 = 20 - 12 - \boxed{4}$$

$$\boxed{6} = 12 - 9 + 3$$

4

Fill in the missing numbers.

$$\text{a) } \underbrace{5 + 6}_{\boxed{1} \boxed{1}} <_1 \underbrace{5 + \boxed{7}}_{\boxed{1} \boxed{2}}$$

$$\text{b) } \underbrace{\boxed{1} \boxed{2} - 9}_{\boxed{\quad} \boxed{3}} >_2 \underbrace{10 - 9}_{\boxed{\quad} \boxed{1}}$$

$$\text{c) } \underbrace{\boxed{\quad} \boxed{4} + 8}_{\boxed{1} \boxed{2}} >_3 \underbrace{1 + 8}_{\boxed{\quad} \boxed{9}}$$

$$\text{d) } \underbrace{11 - 3}_{\boxed{\quad} \boxed{8}} <_1 \underbrace{\boxed{1} \boxed{2} - 3}_{\boxed{\quad} \boxed{9}}$$

5

Kate invited 12 friends to her party.

Three could not come. How many children came?

$$\boxed{1} \boxed{2} - \boxed{3} = \boxed{9}$$

1

Continue the pattern.

$10 + 3 = 13$ ten and three are thirteen, $10 + 3 = 13$ ten and three are thirteen

$10 + 3 = 13$ ten and three are thirteen $10 + 3 = 13$ ten and three are thirteen

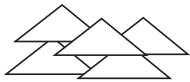
11 eleven, 12 twelve, 13 thirteen, 11 eleven, 12 twelve, 13 thirteen, ...

11 eleven, 12 twelve, 13 thirteen, 11 eleven, 12 twelve, 13 thirteen

2

Julie, Susan, Tony and Peter have to fold 13 napkins each. Write equations about the pictures.

Julie



Susan



Tony



Peter



$5 + 8 = 13$

$7 + 6 = 13$

$8 + 5 = 13$

$6 + 7 = 13$

$13 - 5 = 8$

$13 - 7 = 6$

$13 - 8 = 5$

$13 - 7 = 6$

$13 - 8 = 5$

$13 - 6 = 7$

$13 - 8 = 5$

$13 - 6 = 7$

Who has fewest napkins still to fold? **Tony**

3

Write down the answers in Roman numerals.

- a) $X + I = XI$ b) $X + II = XII$ c) $X + III = XIII$
 d) $IX + II = XI$ e) $IX + III = XII$ f) $IX + IV = XIII$

4

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 9 | 0 | 6 | 2 | 4 | 5 | 5 | 8 | 2 |
| 8 | 4 | 6 | 3 | 1 | 3 | 5 | 1 | 2 | 0 |
| 6 | 4 | 0 | 2 | 5 | 1 | 0 | 1 | 9 | 7 |
| 9 | 0 | 3 | 4 | 0 | 8 | 3 | 0 | 9 | 8 |
| 3 | 3 | 3 | 3 | 2 | 5 | 0 | 7 | 6 | 6 |
| 9 | 6 | 0 | 1 | 1 | 0 | 5 | 7 | 4 | 0 |

$0 + 8 + 5 + 6 + 3 + 1 + 3 = 13$

$9 + 4 = 13$
 $7 + 6 = 13$

Find these shapes in the grid.

Fill in the missing numbers which sum to 13.

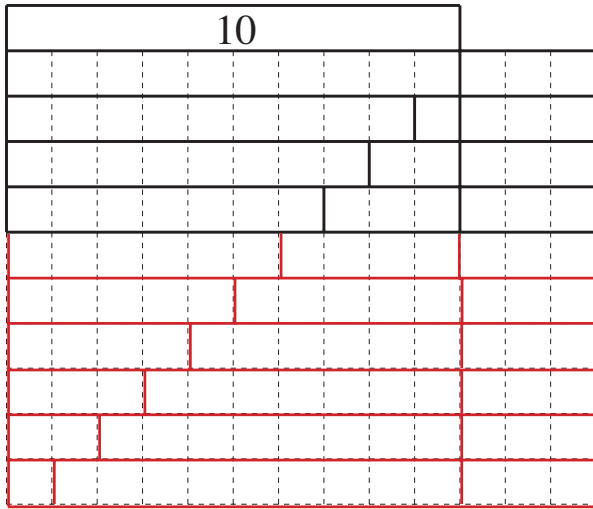
5

Fill in the table.

| | | | | | | | | | | | | | | |
|-----------|----|----|----|----|---|---|---|---|---|---|----|----|----|----|
| 13 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |

1

Continue drawing the number strips to make 13. Write down the additions.

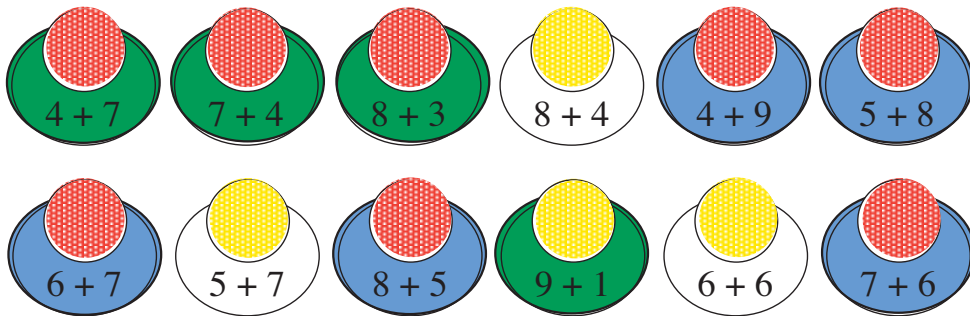


| |
|---------------------------|
| $10 + 3 = 13$ |
| $9 + 1 + 3 = 9 + 4 = 13$ |
| $8 + 2 + 3 = 8 + 5 = 13$ |
| $7 + 3 + 3 = 7 + 6 = 13$ |
| $6 + 4 + 3 = 6 + 7 = 13$ |
| $5 + 5 + 3 = 5 + 8 = 13$ |
| $4 + 6 + 3 = 4 + 9 = 13$ |
| $3 + 7 + 3 = 3 + 10 = 13$ |
| $2 + 8 + 3 = 2 + 11 = 13$ |
| $1 + 9 + 3 = 1 + 12 = 13$ |

2

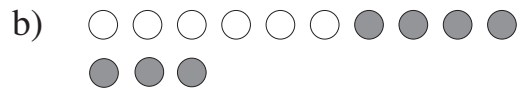
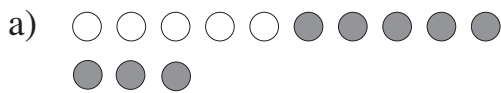
Write the sums into the circles. Colour the shapes as shown.

Even: (Y) Odd: (R) Greater than 12: (B) Smaller than 12: (G)



3

Fill in the missing numbers.



$5 + 8 = \boxed{1} \boxed{3}$ $13 - 5 = \boxed{} \boxed{8}$

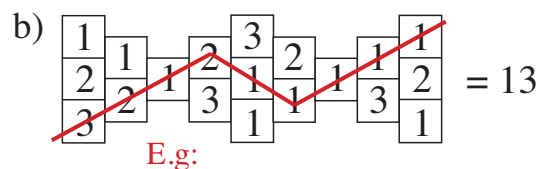
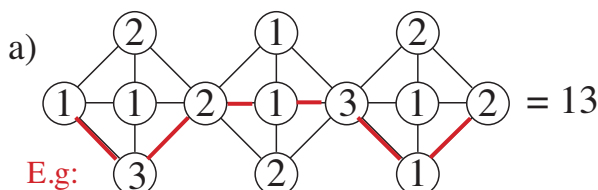
$6 + 7 = \boxed{1} \boxed{3}$ $13 - 6 = \boxed{} \boxed{7}$

$8 + 5 = \boxed{1} \boxed{3}$ $13 - 8 = \boxed{} \boxed{5}$

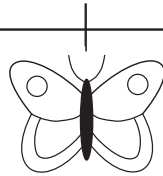
$7 + 6 = \boxed{1} \boxed{3}$ $13 - 7 = \boxed{} \boxed{6}$

4

Draw routes through each maze. The sum of the numbers used must be 13.



1



Draw a tulip 7 cm to the left of the butterfly.

Draw a daisy 6 cm to the right of the butterfly.

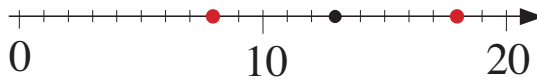
How far away is the daisy from the tulip?

1 3 cm

2

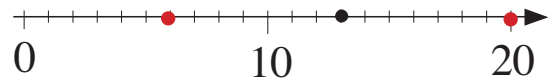
Fill in the missing numbers. Mark them on the number lines.

a)



8 <sub>5 **1 3** <sub>5 **1 8**

b)



6 <sub>7 **1 3** <sub>7 **2 0**

3

Fill in the missing numbers.

$9 + 1 =$ **1 0**

$12 - 4 =$ **8**

$6 + 6 =$ **1 2**

$9 + 4 =$ **1 3**

$13 - 3 =$ **1 0**

$6 + 7 =$ **1 3**

$4 +$ **9** $= 13$

1 3 $- 9 = 4$

$13 - 7 =$ **6**

4

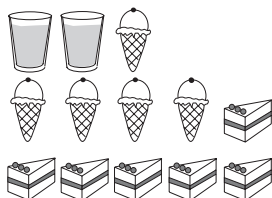
Divide 13 into 3 numbers. $a + b + c = 13$. Complete the table.

| | | | | | | | | | | | | | | | |
|----------|---|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| <i>a</i> | 8 | 6 | 1 | 2 | 6 | 5 | 5 | 1 | 5 | 2 | 3 | 2 | 3 | 4 | 1 |
| <i>b</i> | 2 | 6 | 7 | 1 | 3 | 2 | 4 | 8 | 3 | 2 | 1 | 7 | 7 | 0 | 1 |
| <i>c</i> | 3 | 1 | 5 | 10 | 4 | 6 | 4 | 4 | 5 | 9 | 9 | 4 | 3 | 9 | 11 |

E.g:

5

Write additions about the picture.



$2 + 5 + 6 = 13$

$3 + 5 + 5 = 13$

$3 + 3 + 3 + 2 + 2 = 13$

1

Colour the sums as shown.

| | | | | | | | | | |
|----------|----------|----------|-----------|----------|---------|---------|-----------|-----------|----------|
| $8 + 3$ | $12 - 1$ | $1 + 1$ | $13 - 10$ | $8 + 4$ | $6 + 2$ | $1 + 0$ | $7 + 6$ | $13 - 0$ | $8 + 5$ |
| $12 - 5$ | $4 + 7$ | $12 - 9$ | $11 - 11$ | $10 + 2$ | $7 + 0$ | $9 + 0$ | $13 - 13$ | $12 - 11$ | $3 + 10$ |
| $11 - 8$ | $10 + 1$ | $13 - 6$ | $6 + 6$ | $7 + 5$ | $9 + 3$ | $8 + 1$ | $1 + 12$ | $2 + 11$ | $9 + 4$ |
| $10 - 4$ | $9 + 2$ | $3 + 2$ | $12 - 10$ | $13 - 1$ | $2 + 6$ | $5 + 2$ | $11 - 10$ | $10 - 10$ | $5 + 8$ |
| $3 + 7$ | $7 + 4$ | $0 + 9$ | $13 - 12$ | $12 - 0$ | $2 + 1$ | $3 + 5$ | $11 + 2$ | $11 - 5$ | $10 + 3$ |

$$\boxed{\text{B}} = 10$$

$$\boxed{\text{Y}} = 11$$

$$\boxed{\text{G}} = 12$$

$$\boxed{\text{R}} = 13$$

2

Fill in the missing numbers and signs.

a) $8 \begin{array}{c} \xrightarrow{+5} \\ \xleftarrow{-5} \end{array} \boxed{1} \boxed{3} \begin{array}{c} \xrightarrow{-9} \\ \xleftarrow{+9} \end{array} \boxed{} \boxed{4}$

b) $13 \begin{array}{c} \xrightarrow{-7} \\ \xleftarrow{+7} \end{array} \boxed{} \boxed{6} \begin{array}{c} \xrightarrow{+6} \\ \xleftarrow{-6} \end{array} \boxed{1} \boxed{2}$

c) $\boxed{1} \begin{array}{c} \xrightarrow{+4} \\ \xleftarrow{-4} \end{array} 5 \begin{array}{c} \xrightarrow{+8} \\ \xleftarrow{-8} \end{array} \boxed{1} \boxed{3}$

d) $20 \begin{array}{c} \xrightarrow{-7} \\ \xleftarrow{+7} \end{array} 13 \begin{array}{c} \xrightarrow{+5} \\ \xleftarrow{-5} \end{array} \boxed{1} \boxed{8}$

3

Fill in the missing numbers.

a) $\underbrace{6 + 6}_{\boxed{1} \boxed{2}} < 1 \underbrace{6 + \boxed{7}}_{\boxed{1} \boxed{3}}$

b) $\underbrace{12 - 5}_{\boxed{} \boxed{7}} < 1 \underbrace{\boxed{1} \boxed{3} - 5}_{\boxed{} \boxed{8}}$

c) $\underbrace{4 + 7}_{\boxed{1} \boxed{1}} < 2 \underbrace{4 + \boxed{9}}_{\boxed{1} \boxed{3}}$

d) $\underbrace{13 - 8}_{\boxed{} \boxed{5}} 1 > \underbrace{\boxed{1} \boxed{3} - 9}_{\boxed{} \boxed{4}}$

e) $\underbrace{20 - \boxed{7}}_{\boxed{1} \boxed{3}} = \underbrace{6 + 7}_{\boxed{1} \boxed{3}}$

f) $\underbrace{\boxed{1} \boxed{3} - 9}_{\boxed{} \boxed{4}} 3 > \underbrace{10 - 9}_{\boxed{} \boxed{1}}$

4

Make this statement correct by moving the place of one stick.

$$XI + I = X$$

$$IX + I = X$$

or $X + I = XI$

1

Continue the pattern.

$10 + 4 = 14$, $10 + 4 = 14$, $10 + 4 = 14$, $10 + 4 = 14$, $10 + 4 = 14$

ten and four are fourteen **ten and four are fourteen, ten and four are fourteen**

13 thirteen, 14 fourteen, **13 thirteen, 14 fourteen, 13 thirteen, 14 fourteen,**

13 thirteen, 14 fourteen, 13 thirteen, 14 fourteen, 13 thirteen, 14 fourteen

2

Complete the table. Write down the rules in different ways.




$a + b = 14$ $a = 14 - b$ $b = 14 - a$

| | | | | | | | | | | | | | | | |
|-----|----|----|---|---|----|----|---|----|----|----|----|----|----|---|---|
| a | 2 | 4 | 7 | 9 | 1 | 0 | 6 | 12 | 14 | 13 | 10 | 11 | 3 | 5 | 8 |
| b | 12 | 10 | 7 | 5 | 13 | 14 | 8 | 2 | 0 | 1 | 4 | 3 | 11 | 9 | 6 |

3

We have 3 dice. We have thrown 14 in total.

What could we have thrown on each of the dice? Complete the table.

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  | 4 | 3 | 2 | 4 | 4 | 6 | 3 | 6 | 6 | 5 | 5 | 6 | 6 | 5 | 5 |
|  | 6 | 6 | 6 | 5 | 4 | 4 | 5 | 5 | 3 | 6 | 3 | 2 | 6 | 4 | 5 |
|  | 4 | 5 | 6 | 5 | 6 | 4 | 6 | 3 | 5 | 3 | 6 | 6 | 2 | 5 | 4 |

4

Write down what you think the answers might be.

$X + I = XI$ $X + II = XII$ $X + III = XIII$ $X + IV = XIV$

$XI + II = XIII$ $XI + III = XIV$ $XII + II = XIV$ $XIII + I = XIV$

5

Sam and Nora have 14p altogether.

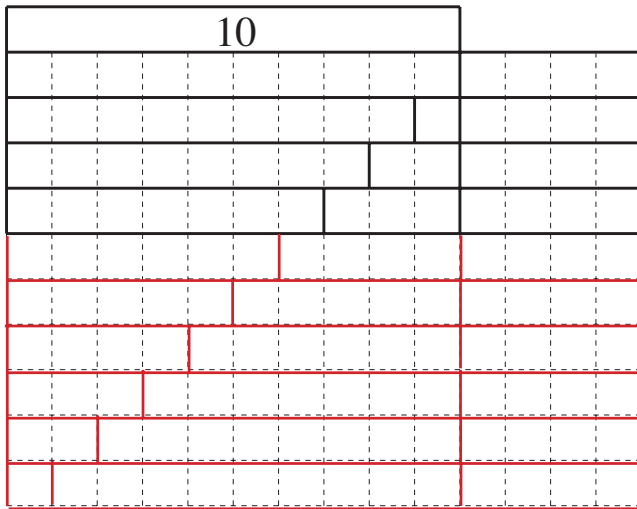


How much do they each have if they both have the same?

7 p

1

Continue drawing the number strips to make 14. Write down the additions.



| |
|---------------------------|
| $10 + 4 = 14$ |
| $9 + 1 + 4 = 9 + 5 = 14$ |
| $8 + 2 + 4 = 8 + 6 = 14$ |
| $7 + 3 + 4 = 7 + 7 = 14$ |
| $6 + 4 + 4 = 6 + 8 = 14$ |
| $5 + 5 + 4 = 5 + 9 = 14$ |
| $4 + 6 + 4 = 4 + 10 = 14$ |
| $3 + 7 + 4 = 3 + 11 = 14$ |
| $2 + 8 + 4 = 2 + 12 = 14$ |
| $1 + 9 + 4 = 1 + 13 = 14$ |



2

Some ducks and tortoises are in the garden.

Altogether there are 5 heads.

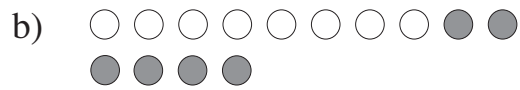
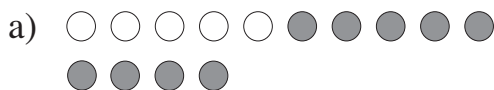
How many legs could there be in total?

Complete the table.

| | | | | |
|--|----|----|----|----|
|  | 4 | 3 | 2 | 1 |
|  | 1 | 2 | 3 | 4 |
| Number of legs | 12 | 14 | 16 | 18 |

3

Fill in the missing numbers.



$5 + 9 = \boxed{14}$

$14 - 5 = \boxed{9}$

$8 + 6 = \boxed{14}$

$14 - 6 = \boxed{8}$

$9 + 5 = \boxed{14}$

$14 - 9 = \boxed{5}$

$6 + 8 = \boxed{14}$

$14 - 8 = \boxed{6}$

$5 + \boxed{9} = 14$

$14 - \boxed{9} = 5$

$8 + \boxed{6} = 14$

$14 - \boxed{6} = 8$

$9 + \boxed{5} = 14$

$\boxed{14} - 5 = 9$

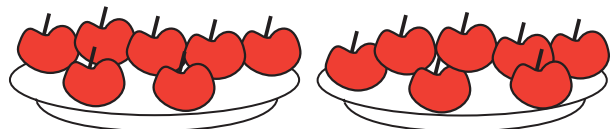
$6 + \boxed{8} = 14$

$\boxed{14} - 8 = 6$

4

14 apples are divided equally between the 2 plates.

Draw the apples and write an equation about it.



$\boxed{7} + \boxed{7} = \boxed{14}$

1

Fill in the missing numbers.

$$6 + 6 = \boxed{12} \quad 14 - 10 = \boxed{4} \quad 5 + 5 = \boxed{10} \quad 20 - 14 = \boxed{6}$$

$$6 + 7 = \boxed{13} \quad 14 - 5 = \boxed{9} \quad 5 + 9 = \boxed{14} \quad \boxed{14} + 6 = 20$$

$$7 + 7 = \boxed{14} \quad \boxed{14} - 9 = 5 \quad 12 - \boxed{6} = 6 \quad \boxed{20} - 14 = 6$$

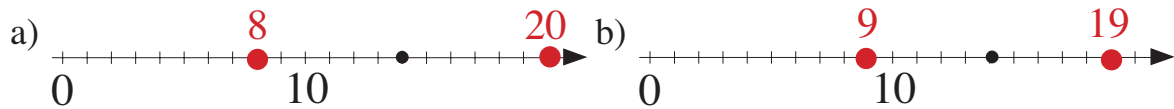
2

Divide 14 into 3 numbers. $a + b + c = 14$ Complete the table.

| | | | | | | | | | | | | | | | |
|----------|----|---|---|---|---|---|---|----|---|---|---|---|---|---|---|
| <i>a</i> | 2 | 3 | 6 | 3 | 8 | 5 | 9 | 1 | 2 | 6 | 7 | 2 | 8 | 3 | 7 |
| <i>b</i> | 2 | 2 | 6 | 7 | 5 | 4 | 1 | 3 | 9 | 4 | 1 | 8 | 3 | 5 | 7 |
| <i>c</i> | 10 | 9 | 2 | 4 | 1 | 5 | 4 | 10 | 3 | 4 | 6 | 4 | 3 | 6 | 0 |

3

Fill in the missing numbers. Mark them on the number lines.



$$\boxed{8} <_6 \boxed{14} <_6 \boxed{20}$$

$$\boxed{14} + 6 = \boxed{20}$$

$$\boxed{20} - 6 = \boxed{14}$$

$$\boxed{14} - 6 = \boxed{8}$$

$$\boxed{8} + 6 = \boxed{14}$$

$$\boxed{9} <_5 \boxed{14} <_5 \boxed{19}$$

$$\boxed{14} + 5 = \boxed{19}$$

$$\boxed{19} - 5 = \boxed{14}$$

$$\boxed{14} - 5 = \boxed{9}$$

$$\boxed{9} + 5 = \boxed{14}$$

4



Fill in the missing numbers.

$$5 + 5 = \boxed{10} \quad \boxed{8} + 6 = 14 \quad \boxed{14} - 6 = 8$$

$$6 + 6 = \boxed{12} \quad 12 - 9 = \boxed{3} \quad 5 + \boxed{9} = 14$$

$$7 + 7 = \boxed{14} \quad 14 - \boxed{9} = 5 \quad 12 - \boxed{4} = 8$$

5

Sue and Bill have 14 p altogether.  Sue has $\boxed{8}$ p
 Sue has 2 p more than Bill.  Bill has $\boxed{6}$ p

1

Continue the pattern.

1 litre, 10 litres **1 litre, 10 litres, 1 litre, 10 litres, 1 litre, 10 litres**

1 metre, 10 metres **1 metre, 10 metres, 1 metre, 10 metres, 1 metre, 10 metres**

1 cm, 10 cm **1 cm, 10 cm, 1 cm, 10 cm, 1 cm, 10 cm, 1 cm, 10 cm**

1 kg, 10 kg **1 kg, 10 kg, 1 kg, 10 kg, 1 kg, 10 kg, 1 kg, 10 kg, 1 kg, 10 kg**

2

Fill in the missing numbers and signs.

a) $8 \begin{array}{c} \xrightarrow{-7} \\ \xleftarrow{+7} \end{array} \begin{array}{|c|c|} \hline & 1 \\ \hline \end{array} \begin{array}{c} \xrightarrow{+5} \\ \xleftarrow{-5} \end{array} \begin{array}{|c|c|} \hline & 6 \\ \hline \end{array}$

b) $14 \begin{array}{c} \xrightarrow{+6} \\ \xleftarrow{-6} \end{array} \begin{array}{|c|c|} \hline 2 & 0 \\ \hline \end{array} \begin{array}{c} \xrightarrow{-9} \\ \xleftarrow{+9} \end{array} \begin{array}{|c|c|} \hline 1 & 1 \\ \hline \end{array}$

c) $\begin{array}{|c|} \hline 0 \\ \hline \end{array} \begin{array}{c} \xrightarrow{+6} \\ \xleftarrow{-6} \end{array} 6 \begin{array}{c} \xrightarrow{+8} \\ \xleftarrow{-8} \end{array} \begin{array}{|c|c|} \hline 1 & 4 \\ \hline \end{array}$

d) $20 \begin{array}{c} \xrightarrow{-6} \\ \xleftarrow{+6} \end{array} 14 \begin{array}{c} \xrightarrow{+5} \\ \xleftarrow{-5} \end{array} \begin{array}{|c|c|} \hline 1 & 9 \\ \hline \end{array}$

3

Fill in the missing numbers.

a) $\underbrace{5 + 5}_{\begin{array}{|c|c|} \hline 1 & 0 \\ \hline \end{array}} < 4 \underbrace{5 + \boxed{9}}_{\begin{array}{|c|c|} \hline 1 & 4 \\ \hline \end{array}}$

b) $\underbrace{12 - 6}_{\begin{array}{|c|c|} \hline & 6 \\ \hline \end{array}} < 2 \underbrace{\boxed{1} \boxed{4} - 6}_{\begin{array}{|c|c|} \hline & 8 \\ \hline \end{array}}$

c) $\underbrace{13 - 5}_{\begin{array}{|c|c|} \hline & 8 \\ \hline \end{array}} < 2 \underbrace{14 - \boxed{4}}_{\begin{array}{|c|c|} \hline 1 & 0 \\ \hline \end{array}}$

d) $\underbrace{14 - 8}_{\begin{array}{|c|c|} \hline & 6 \\ \hline \end{array}} 3 > \underbrace{11 - \boxed{8}}_{\begin{array}{|c|c|} \hline & 3 \\ \hline \end{array}}$

e) $\underbrace{7 - \boxed{1}}_{\begin{array}{|c|c|} \hline & 6 \\ \hline \end{array}} 3 > \underbrace{7 - 4}_{\begin{array}{|c|c|} \hline & 3 \\ \hline \end{array}}$

f) $\underbrace{14 - 9}_{\begin{array}{|c|c|} \hline & 5 \\ \hline \end{array}} < 2 \underbrace{14 - \boxed{7}}_{\begin{array}{|c|c|} \hline & 7 \\ \hline \end{array}}$

4

In this magic square, the sum of each column, row and diagonal is 14.

Fill in the missing numbers.

| | | | |
|----------|----------|----------|----------|
| 3 | 5 | 5 | 1 |
| 1 | 4 | 3 | 6 |
| 2 | 2 | 5 | 5 |
| 8 | 3 | 1 | 2 |

1

Continue the pattern.

10 + 5 = 15, ~~10 + 5 = 15~~, ~~10 + 5 = 15~~, ~~10 + 5 = 15~~, ~~10 + 5 = 15~~, ~~10 + 5 = 15~~

11 eleven, 12 twelve, ~~11 eleven~~, ~~12 twelve~~, ~~11 eleven~~, ~~12 twelve~~

13 thirteen, 14 fourteen, ~~13 thirteen~~, ~~14 fourteen~~, ~~13 thirteen~~, ~~14 fourteen~~

15 fifteen, 15 fifteen, ~~15 fifteen~~, ~~15 fifteen~~, ~~15 fifteen~~, ~~15 fifteen~~

2

Complete the table. Write down the rule in different ways.

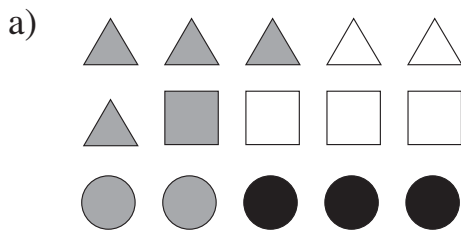
$a + b = 15$ $a = 15 - b$ $b = 15 - a$

| | | | | | | | | | | | | | | | | |
|----------|----|----|---|----|----|----|----|---|---|----|----|----|----|----|---|----|
| <i>a</i> | 2 | 5 | 7 | 11 | 14 | 15 | 13 | 9 | 6 | 0 | 1 | 4 | 10 | 12 | 8 | 3 |
| <i>b</i> | 13 | 10 | 8 | 4 | 1 | 0 | 2 | 6 | 9 | 15 | 14 | 11 | 5 | 3 | 7 | 12 |

If a column has one odd and one even number, colour it green.

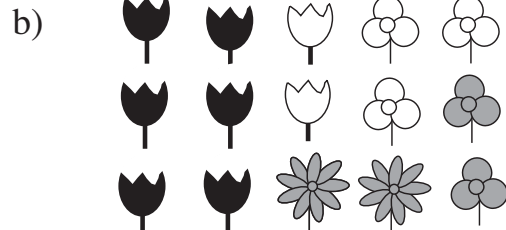
3

Write additions about the pictures.



E.g:

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|----|---|---|---|----|--|--|--|--|--|--|
| 3 | + | 3 | + | 3 | + | 3 | + | 3 | = | 15 | | | | | | |
| 5 | + | 5 | + | 5 | = | 15 | | | | | | | | | | |
| 4 | + | 2 | = | 6 | | | | | | | | | | | | |
| 3 | + | 1 | = | 4 | | | | | | | | | | | | |
| 3 | + | 2 | = | 5 | | | | | | | | | | | | |
| 7 | + | 5 | + | 3 | = | 15 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |



E.g:

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|----|--|--|--|--|--|--|--|--|--|--|
| 6 | + | 2 | = | 8 | | | | | | | | | | | | |
| 3 | + | 2 | = | 5 | | | | | | | | | | | | |
| 5 | + | 8 | + | 2 | = | 15 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |

4

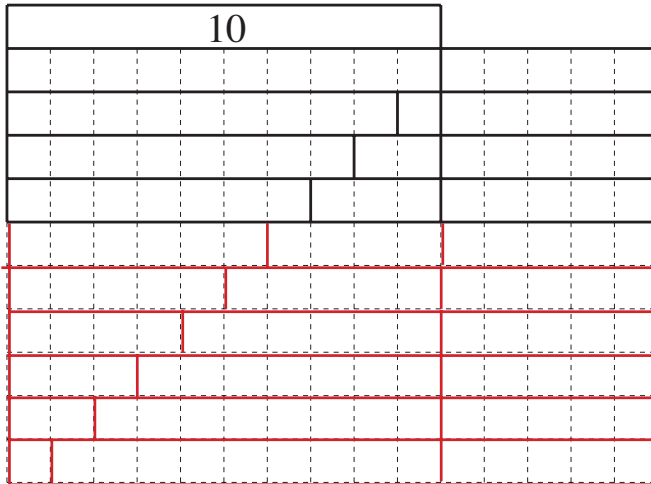
Divide these number cards into 2 groups so that the sums of the numbers are equal.

Impossible (as total is an odd number)



1

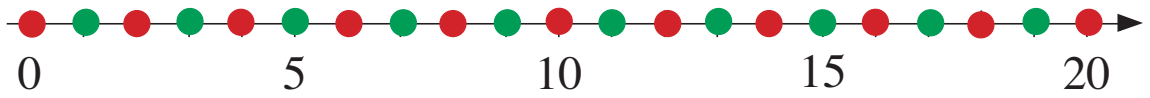
Continue drawing the number strips for 15. Write down the additions.



| |
|---------------------------|
| $10 + 5 = 15$ |
| $9 + 1 + 5 = 9 + 6 = 15$ |
| $8 + 2 + 5 = 8 + 7 = 15$ |
| $7 + 3 + 5 = 7 + 8 = 15$ |
| $6 + 4 + 5 = 6 + 9 = 15$ |
| $5 + 5 + 5 = 5 + 10 = 15$ |
| $4 + 6 + 5 = 4 + 11 = 15$ |
| $3 + 7 + 5 = 3 + 12 = 15$ |
| $2 + 8 + 5 = 2 + 13 = 15$ |
| $1 + 9 + 5 = 1 + 14 = 15$ |

2

Draw a red dot on the **even** numbers and a green dot on the **odd** numbers on the number line.



A sparrow starts at 0 and jumps twice. Both jumps are the same distance. Where does he get to? Complete the table.

| | | | | | | | | | | |
|-------------------|---|---|---|---|----|----|----|----|----|----|
| Length of 1 jump | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Length of 2 jumps | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 |

Can he get to 15? **No**

3

Fill in the missing numbers.

$7 + 7 = \boxed{1} \boxed{4}$ $10 - 9 = \boxed{1}$ $8 + 5 = \boxed{1} \boxed{3}$ $20 - \boxed{5} = 15$
 $7 + 8 = \boxed{1} \boxed{5}$ $15 - 9 = \boxed{6}$ $8 + \boxed{7} = 15$ $5 + 15 = \boxed{2} \boxed{0}$
 $6 + \boxed{8} = 14$ $10 - \boxed{5} = 5$ $10 - \boxed{4} = 6$ $15 - \boxed{5} = 10$
 $9 + \boxed{6} = 15$ $\boxed{2} \boxed{0} - 15 = 5$ $\boxed{1} \boxed{5} - 8 = 7$ $20 - 5 = \boxed{1} \boxed{5}$

1

Divide 15 into 3 numbers.

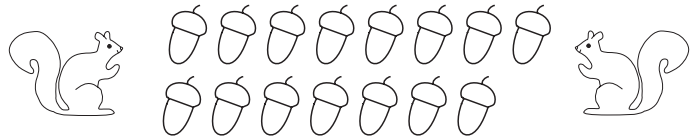
$$a + b + c = 15$$

Complete the table.

| | | | | | | | | | | | | | | | |
|----------|----|---|----|---|---|---|---|---|---|---|---|---|---|---|---|
| <i>a</i> | 2 | 5 | 2 | 3 | 6 | 2 | 6 | 8 | 5 | 2 | 3 | 8 | 7 | 4 | 4 |
| <i>b</i> | 3 | 5 | 11 | 5 | 7 | 4 | 6 | 4 | 1 | 5 | 3 | 6 | 7 | 7 | 5 |
| <i>c</i> | 10 | 5 | 2 | 7 | 2 | 9 | 3 | 3 | 9 | 8 | 9 | 1 | 1 | 4 | 6 |

2

Sam and Pam Squirrel have 15 acorns altogether.



a) If Sam has 6 acorns, how many does Pam have?

$$15 - 6 = 9$$

b) Who has more acorns? **Pam**

c) How many more?

$$9 - 6 = 3$$

3

Fill in the missing numbers. Join each number line to the correct equation.

$$15 - 10 + 5 = 10$$

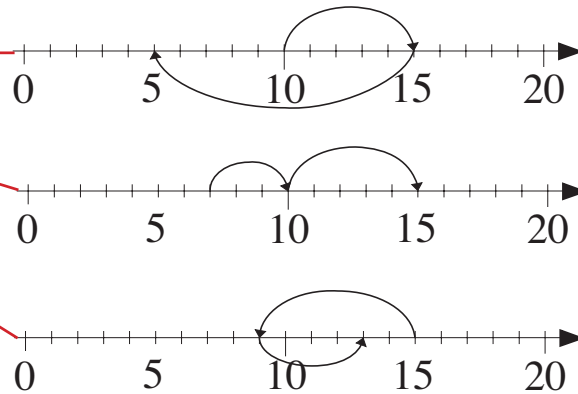
$$10 + 5 - 10 = 5$$

$$7 + 3 + 5 = 15$$

$$15 - 6 + 4 = 13$$

$$7 + 8 = 15$$

$$9 + 4 - 6 = 7$$



4

Fill in the missing numbers.

$$9 + 1 = 10$$

$$14 - 7 = 7$$

$$10 - 3 = 7$$

$$6 + 6 = 12$$

$$9 + 6 = 15$$

$$15 - 7 = 8$$

$$15 - 8 = 7$$

$$6 + 9 = 15$$

$$15 - 8 = 7$$

$$15 - 9 = 6$$

$$15 - 5 = 10$$

$$20 - 8 = 12$$

$$9 + 6 = 15$$

$$15 - 6 = 9$$

$$20 - 15 = 5$$

$$15 - 7 = 8$$

1

Continue the pattern.

1 metre = 1 m . 1 metre = 1 m . 1 metre = 1 m . 1 metre = 1 m . 1 metre = 1 m

1 kilogram = 1 kg . 1 kilogram = 1 kg . 1 kilogram = 1 kg . 1 kilogram = 1 kg

7 kg + 8 kg = 15 kg . 7 kg + 8 kg = 15 kg . 7 kg + 8 kg = 15 kg

2

Fill in the missing numbers and signs.

a) $7 \begin{array}{c} \xrightarrow{+7} \\ \xleftarrow{-7} \end{array} \begin{array}{|c|c|} \hline 1 & 4 \\ \hline \end{array} \begin{array}{c} \xleftarrow{-8} \\ \xrightarrow{+8} \end{array} \begin{array}{|c|c|} \hline & 6 \\ \hline \end{array}$

b) $15 \begin{array}{c} \xleftarrow{-9} \\ \xrightarrow{+9} \end{array} \begin{array}{|c|c|} \hline & 6 \\ \hline \end{array} \begin{array}{c} \xrightarrow{+6} \\ \xleftarrow{-6} \end{array} \begin{array}{|c|c|} \hline 1 & 2 \\ \hline \end{array}$

c) $\begin{array}{|c|} \hline 6 \\ \hline \end{array} \begin{array}{c} \xrightarrow{+9} \\ \xleftarrow{-9} \end{array} 15 \begin{array}{c} \xleftarrow{-7} \\ \xrightarrow{+7} \end{array} \begin{array}{|c|c|} \hline & 8 \\ \hline \end{array}$

d) $20 \begin{array}{c} \xleftarrow{-5} \\ \xrightarrow{+5} \end{array} 15 \begin{array}{c} \xleftarrow{-5} \\ \xrightarrow{+5} \end{array} \begin{array}{|c|c|} \hline 1 & 0 \\ \hline \end{array}$

3

Fill in the missing numbers.

a) $7 + \begin{array}{|c|} \hline 7 \\ \hline \end{array} < 1 \begin{array}{|c|c|} \hline 7 & + & 8 \\ \hline \end{array}$
 $\begin{array}{|c|c|} \hline 1 & 4 \\ \hline \end{array} \begin{array}{|c|c|} \hline 1 & 5 \\ \hline \end{array}$

b) $10 - 5 < 5 \begin{array}{|c|c|} \hline 1 & 5 \\ \hline \end{array} - 5$
 $\begin{array}{|c|c|} \hline & 5 \\ \hline \end{array} \begin{array}{|c|c|} \hline 1 & 0 \\ \hline \end{array}$

c) $9 + \begin{array}{|c|} \hline 6 \\ \hline \end{array} = 7 + 8$
 $\begin{array}{|c|c|} \hline 1 & 5 \\ \hline \end{array} \begin{array}{|c|c|} \hline 1 & 5 \\ \hline \end{array}$

d) $15 - 7 > 2 \begin{array}{|c|c|} \hline 15 & - & 9 \\ \hline \end{array}$
 $\begin{array}{|c|c|} \hline & 8 \\ \hline \end{array} \begin{array}{|c|c|} \hline & 6 \\ \hline \end{array}$

4

Fill in the missing numbers.

$15 = 5 + 5 + \begin{array}{|c|} \hline 5 \\ \hline \end{array}$

$\begin{array}{|c|} \hline 6 \\ \hline \end{array} = 15 - 6 - 3$

$\begin{array}{|c|c|} \hline 1 & 5 \\ \hline \end{array} = 8 + 4 + 3$

$13 = 6 + 5 + \begin{array}{|c|} \hline 2 \\ \hline \end{array}$

$\begin{array}{|c|c|} \hline 1 & 5 \\ \hline \end{array} = 6 + 6 + 3$

$14 = \begin{array}{|c|} \hline 7 \\ \hline \end{array} + 4 + 3$

$11 = 15 - 7 + \begin{array}{|c|} \hline 3 \\ \hline \end{array}$

$12 = 9 + 6 - \begin{array}{|c|} \hline 3 \\ \hline \end{array}$

$12 = 15 - 7 + \begin{array}{|c|} \hline 4 \\ \hline \end{array}$

$14 = 8 + 7 - \begin{array}{|c|} \hline 1 \\ \hline \end{array}$

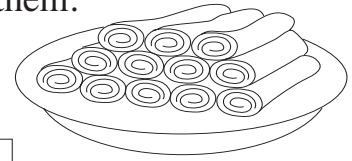
$13 = 7 + 7 - \begin{array}{|c|} \hline 1 \\ \hline \end{array}$

$\begin{array}{|c|c|} \hline 1 & 5 \\ \hline \end{array} = 4 + 7 + 4$

1

Mother is making pancakes. Alice has eaten three of them.

Tim has eaten two more than Alice.



a) How many has Tim eaten?

$$\boxed{3} + \boxed{2} = \boxed{5}$$

b) How many pancakes are left for John?

$$\boxed{12} - \boxed{5} = \boxed{7} \quad \boxed{}$$

2

Fill in the missing numbers.

$$\begin{array}{rcccccc} 15 & - & 4 & - & 1 & - & 9 & = & \boxed{} & \boxed{1} \\ - & & - & & + & & - & & & + \\ 5 & + & 3 & - & 2 & + & 4 & = & \boxed{1} & \boxed{0} \\ - & & + & & + & & + & & & - \\ 9 & + & 2 & + & 3 & - & 5 & = & \boxed{} & \boxed{9} \\ + & & + & & + & & - & & & + \\ 7 & + & 3 & + & 2 & + & 1 & = & \boxed{1} & \boxed{3} \\ = & & = & & = & & = & & & = \\ \boxed{8} & + & \boxed{6} & - & \boxed{8} & + & \boxed{9} & = & \boxed{1} & \boxed{5} \end{array}$$

3

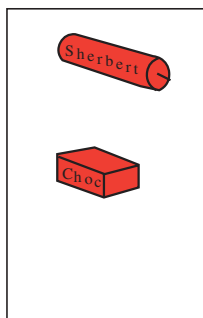
Patrick, John, Tom, Gordon and Bill went shopping. They each spent 13 p.

They all bought different types of sweet.

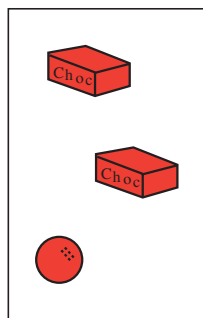
Patrick bought the fewest and Bill bought the most sweets.

Who could have bought what?

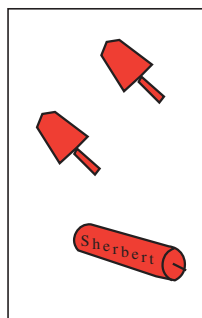
E.g: = 7p = 6p = 3p = 2p = 1p



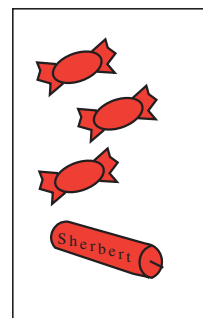
Patrick



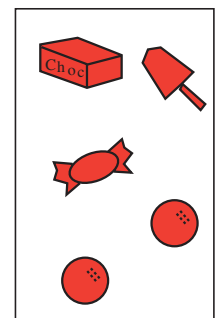
John



Tom



Gordon



Bill

1

Fill in the missing numbers.

$2 + \boxed{9} = 11$

$\boxed{6} + 8 = 14$

$15 - \boxed{7} = 8$

$3 + \boxed{8} = 11$

$12 - \boxed{4} = 8$

$7 + \boxed{5} = 12$

$12 - \boxed{6} = 6$

$17 - \boxed{4} = 13$

$5 + \boxed{7} = 12$

$9 + \boxed{6} = 15$

$\boxed{13} - 5 = 8$

$20 - \boxed{8} = 12$

$\boxed{14} - 7 = 7$

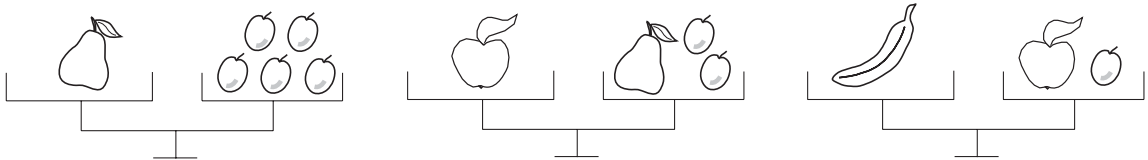
$\boxed{13} - 4 = 9$

$\boxed{20} - 8 = 12$

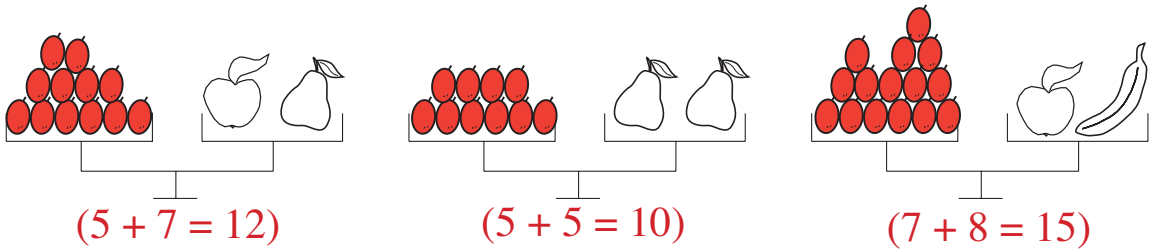
$\boxed{15} - 3 = 12$

2

Judy and Ann want to weigh the fruit.

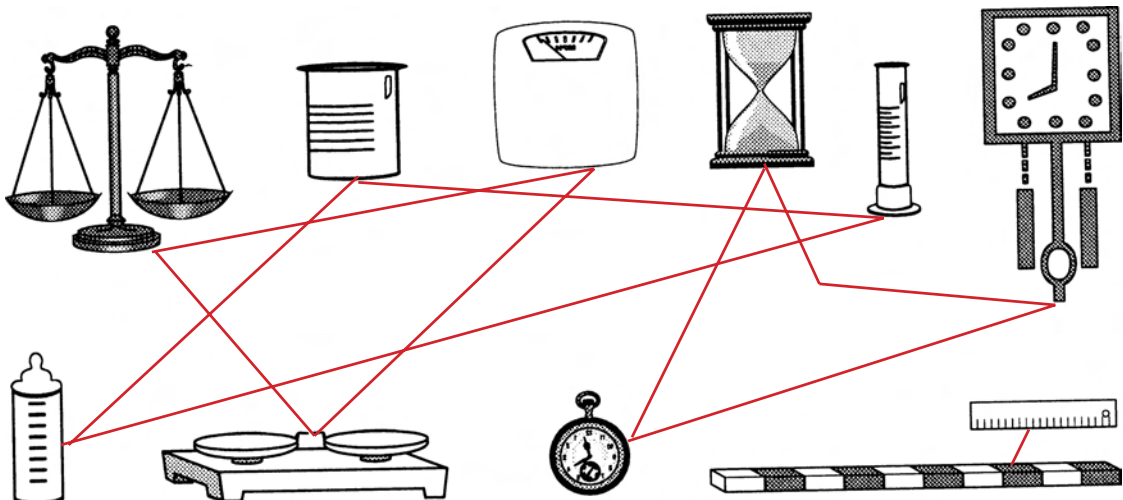
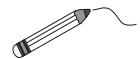


Draw plums on the left-hand side of the scales to make them balance.



3

Join up the measuring tools which use the same kind of units.

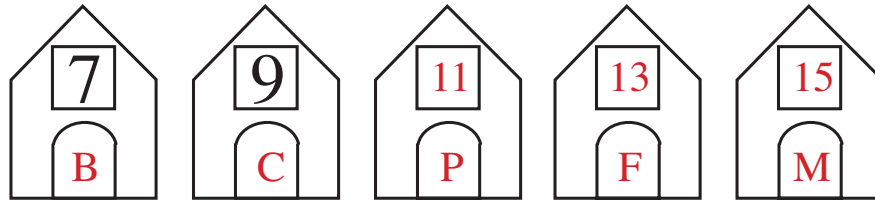


1

Five dogs live next to each other in houses with consecutive odd numbers
Bob lives in the house with the smallest number.

The number of **Fred's** house is greater than 12 but not greater than 13.

Pluto lives between **Cesar** and **Fred**. **Max** lives next to **Fred**.



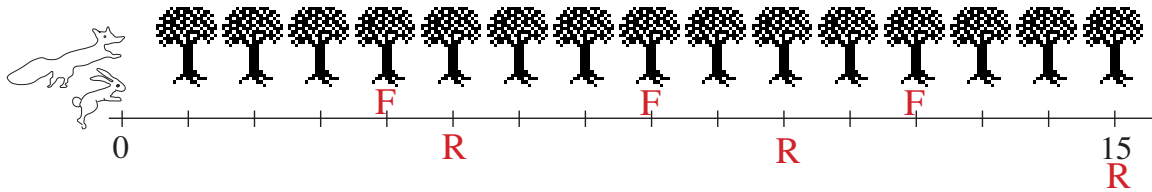
Who lives where? Fill in the missing numbers and letters.

2

Rabbit and Fox had a running race to a clearing 15 trees away.

They ran at the same speed. Rabbit ran steadily without stopping

Fox stopped after every 4 trees, while Rabbit moved one more tree ahead every time.



How many trees away was Fox from the last tree when Rabbit reached the clearing?

3**3**

Fill in the missing numbers.

$$\begin{array}{r}
 3 + 6 + 2 + 2 = \boxed{13} \\
 + \quad - \quad + \quad + \quad - \\
 5 + 2 - 1 + 6 = \boxed{12} \\
 + \quad + \quad + \quad + \quad + \\
 1 + 1 + 4 - 3 = \boxed{3} \\
 + \quad + \quad - \quad - \quad + \\
 6 + 2 + 1 - 8 = \boxed{1} \\
 = \quad = \quad = \quad = \quad = \\
 \boxed{15} - \boxed{7} - \boxed{6} + \boxed{3} = \boxed{5}
 \end{array}$$

1

Fill in the missing numbers.

$5 + 6 = \boxed{11}$

$9 + 6 = \boxed{15}$

$14 - 9 = \boxed{5}$

$9 + 4 = \boxed{13}$

$8 + 7 = \boxed{15}$

$15 - 8 = \boxed{7}$

$7 + 5 = \boxed{12}$

$7 + 7 = \boxed{14}$

$11 - 4 = \boxed{7}$

$13 - 8 = \boxed{5}$

$17 - 5 = \boxed{12}$

$12 - 5 = \boxed{7}$

$15 - 9 = \boxed{6}$

$18 - 4 = \boxed{14}$

$13 - 6 = \boxed{7}$

$12 - 7 = \boxed{5}$

$13 - 9 = \boxed{4}$

$15 - 6 = \boxed{9}$

$15 - 5 = \boxed{10}$

$18 - 3 = \boxed{15}$

$20 - 7 = \boxed{13}$

2

Fill in the missing numbers.

$\boxed{8} + 6 = 14$

$\boxed{13} - 7 = 6$

$6 + \boxed{5} = 11$

$15 - \boxed{6} = 9$

$7 + \boxed{4} = 11$

$\boxed{7} + 8 = 15$

$14 - \boxed{9} = 5$

$9 + \boxed{3} = 12$

3

Fill in the missing numbers.

$3 \xrightarrow{+9} \boxed{12} \xrightarrow{-4} \boxed{8} \xrightarrow{+6} \boxed{14} \xrightarrow{-5} \boxed{9} \xrightarrow{+6} \boxed{15}$

$15 \xrightarrow{-7} \boxed{8} \xrightarrow{+5} \boxed{13} \xrightarrow{-9} \boxed{4} \xrightarrow{+7} \boxed{11} \xrightarrow{-3} \boxed{8}$

4

Underline which of the numbers, 10 or 20, is closer to the middle number.

$\underline{10} < 12 < 20$

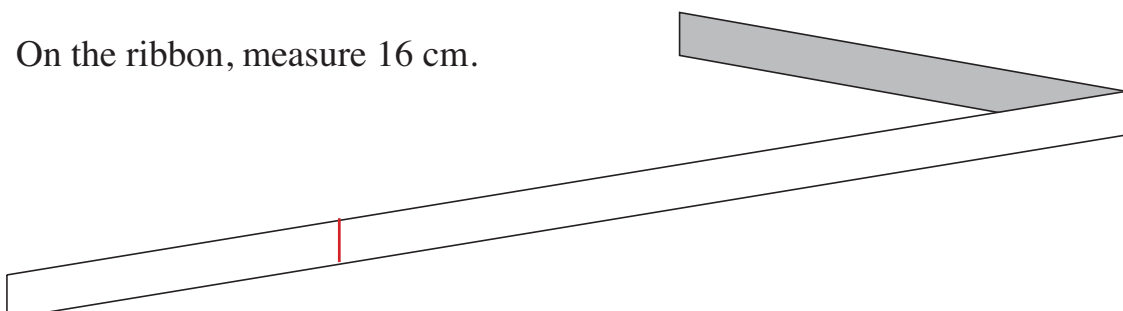
$10 < 16 < \underline{20}$

$\underline{10} < 13 < 20$

$10 < 18 < \underline{20}$

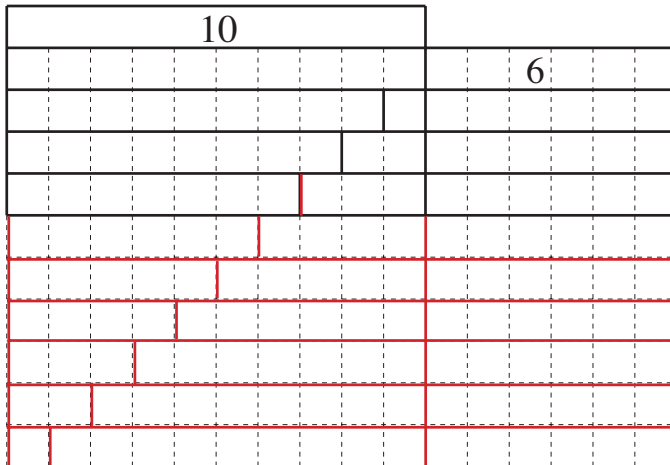
5

On the ribbon, measure 16 cm.



1

Continue drawing the number strips for 16. Write down the additions.

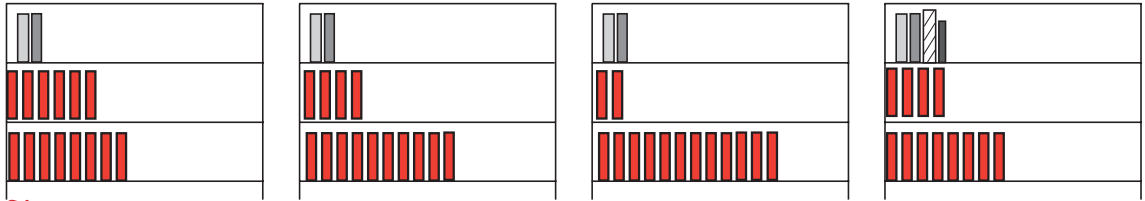


| |
|---------------------------|
| $10 + 6 = 16$ |
| $9 + 1 + 6 = 9 + 7 = 16$ |
| $8 + 2 + 6 = 8 + 8 = 16$ |
| $7 + 3 + 6 = 7 + 9 = 16$ |
| $6 + 4 + 6 = 6 + 10 = 16$ |
| $5 + 5 + 6 = 5 + 11 = 16$ |
| $4 + 6 + 6 = 4 + 12 = 16$ |
| $3 + 7 + 6 = 3 + 13 = 16$ |
| $2 + 8 + 6 = 2 + 14 = 16$ |
| $1 + 9 + 6 = 1 + 15 = 16$ |

2

Alan knows that the number of books on each shelf is even. He counted 16 books in total on the 3 shelves.

How many books could there be on the bottom two shelves?



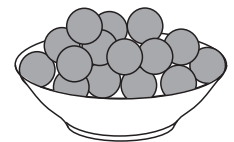
E.g:

| | | | |
|--------------|---------------|---------------|--------------|
| $6 + 8 = 14$ | $4 + 10 = 14$ | $2 + 12 = 14$ | $4 + 8 = 12$ |
|--------------|---------------|---------------|--------------|

3

Mother has made 16 meatballs for lunch. Jeremy has eaten 2 meatballs fewer than Rachel. How many could be left for Father?

| | | | | | | | | | | |
|--------|----|----|---|---|---|---|---|----|--|--|
| Jeremy | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 0 | | |
| Rachel | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 2 | | |
| Father | 12 | 10 | 8 | 6 | 4 | 2 | 0 | 14 | | |



4

Write down what you think the answers might be.

- a) $XII + III = XV$ b) $XII + IV = XVI$ c) $XIII + I = XIV$
 d) $XIII + II = XV$ e) $XIV + I = XV$ f) $XV + I = XVI$

1

Write the correct numbers in the number strips and boxes.

| | | | | | | | | | | | | | | | |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | | | | | | | | | | | | | | | |
| 8 | | | | | | | | 8 | | | | | | | |
| 4 | | | | 4 | | | | 4 | | | | 4 | | | |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

$$16 \begin{array}{c} \xrightarrow{\text{is twice}} \\ \xleftarrow{\text{is half of}} \end{array} \boxed{8}$$

$$\boxed{4} \begin{array}{c} \xrightarrow{\text{is twice}} \\ \xleftarrow{\text{is half of}} \end{array} 2$$

$$2 \begin{array}{c} \xrightarrow{\text{is twice}} \\ \xleftarrow{\text{is half of}} \end{array} \boxed{1}$$

$$\boxed{8} \begin{array}{c} \xrightarrow{\text{is twice}} \\ \xleftarrow{\text{is half of}} \end{array} 4$$

2

Alice has a strip of paper 16 cm long.

She paints 2 cm yellow, 5 cm green and the *rest* red. Colour in the paper.

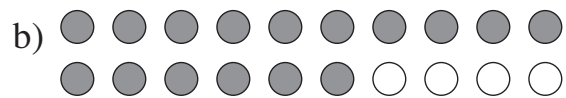
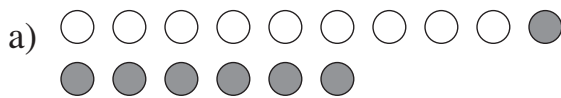


Underline the equation which describes the story.

$$16 - 5 + 2 = r \quad 16 + 5 - 2 = r \quad \underline{5 + 2 + r = 16}$$

3

Fill in the missing numbers.



$9 + \boxed{7} = 16$

$16 - \boxed{7} = 9$

$20 - \boxed{4} = 16$

$16 + \boxed{4} = 20$

$7 + \boxed{9} = 16$

$\boxed{16} - 9 = 7$

$\boxed{20} - 16 = 4$

$4 + \boxed{16} = 20$

4

Fill in the missing numbers and signs.

a) $8 \begin{array}{c} \xrightarrow{+8} \\ \xleftarrow{-8} \end{array} \boxed{16} \begin{array}{c} \xrightarrow{-4} \\ \xleftarrow{+4} \end{array} 12$

b) $16 \begin{array}{c} \xrightarrow{-9} \\ \xleftarrow{+9} \end{array} \boxed{7} \begin{array}{c} \xrightarrow{+7} \\ \xleftarrow{-7} \end{array} \boxed{14}$

1

Continue drawing the number strips for 17. Write down the additions.

| | | | | | | | | | | | | | | | | |
|----|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|
| 10 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | 7 | | | | | |
| | | | | | | | | | | | | | | | | |
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| |
|---------------------------|
| $10 + 7 = 17$ |
| $9 + 1 + 7 = 9 + 8 = 17$ |
| $8 + 2 + 7 = 8 + 9 = 17$ |
| $7 + 3 + 7 = 7 + 10 = 17$ |
| $6 + 4 + 7 = 6 + 11 = 17$ |
| $5 + 5 + 7 = 5 + 12 = 17$ |
| $4 + 6 + 7 = 4 + 13 = 17$ |
| $3 + 7 + 7 = 3 + 14 = 17$ |
| $2 + 8 + 7 = 2 + 15 = 17$ |
| $1 + 9 + 7 = 1 + 16 = 17$ |

2

Anne and Vicky have picked some flowers.



Vicky has 5 flowers more than Anne.

How many flowers could they have picked? Complete the table.

| | | | | | | | | | | | | | |
|-------|---|---|---|----|----|----|----|----|----|----|----|----|----|
| Anne | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Vicky | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| A + V | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 |

3

Peter and Geoff each had 9 p their piggy banks.

Peter is given another 8 p from his grandfather.

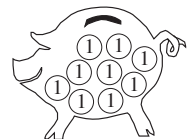
| | | | | | |
|---|---|---|---|---|---|
| 9 | + | 8 | = | 1 | 7 |
|---|---|---|---|---|---|

Geoff buys flowers for his grandmother for 8 p.

| | | | | |
|---|---|---|---|---|
| 9 | - | 8 | = | 1 |
|---|---|---|---|---|

a) Who has more money now? **Peter**

b) How much more? $17 - 8 = 9$ p



4

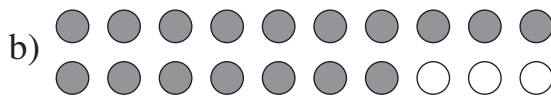
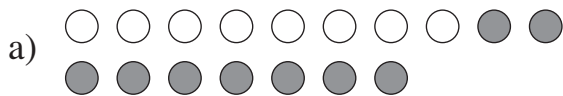
Complete the table. Write down the rule in different ways.

$a + b = 17$ $a = 17 - b$ $b = 17 - a$

| | | | | | | | | | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|
| a | 17 | 1 | 15 | 3 | 14 | 5 | 0 | 13 | 12 | 4 | 16 | 6 | 2 | 11 | 7 | 10 | 8 | 9 |
| b | 0 | 16 | 2 | 14 | 3 | 12 | 17 | 4 | 5 | 13 | 1 | 11 | 15 | 6 | 10 | 7 | 9 | 8 |

1

Fill in the missing numbers.



$$8 + \boxed{9} = 17$$

$$17 - \boxed{9} = 8$$

$$20 - \boxed{3} = 17$$

$$17 + \boxed{3} = 20$$

$$9 + \boxed{8} = 17$$

$$\boxed{17} - 8 = 9$$

$$\boxed{20} - 17 = 3$$

$$3 + \boxed{17} = 20$$

2

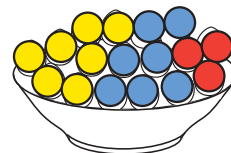
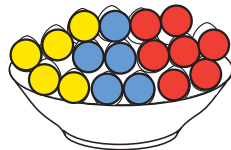
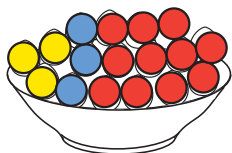
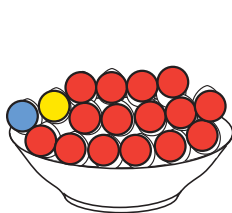
Julie painted 17 eggs for Easter. She painted the same number of eggs yellow as blue. She painted the rest red.

How many yellow, blue and red eggs could there be if the number of eggs in each colour is odd?

E.g:

$$\boxed{3} + \boxed{3} + \boxed{11} = \boxed{17}$$

$$\boxed{7} + \boxed{7} + \boxed{3} = \boxed{17}$$



$$\boxed{1} + \boxed{1} + \boxed{15} = \boxed{17}$$

$$\boxed{5} + \boxed{5} + \boxed{7} = \boxed{17}$$

3

Fill in the missing numbers.

$$20 - \boxed{3} = 17$$

$$9 + 7 = \boxed{16}$$

$$20 - 17 = \boxed{3}$$

$$\boxed{17} - 8 = 9$$

$$\boxed{10} - 3 = 7$$

$$9 + \boxed{8} = 17$$

$$17 - \boxed{3} = 14$$

$$10 + \boxed{7} = 17$$

4

Fill in the missing numbers.

$$15 = 17 - 8 + \boxed{6}$$

$$7 = 17 - 3 - \boxed{7}$$

$$6 = 20 - 6 - \boxed{8}$$

$$\boxed{11} = 9 + 7 - 5$$

$$\boxed{8} = 6 + 11 - 9$$

$$\boxed{17} = 4 + 7 + 6$$

5

Penny had 17 postcards. She gave 9 to Sue and swapped 8 with Anthony.

How many postcards does she have left?

$$\boxed{17} - \boxed{9} = \boxed{8}$$