Divide by 8

1 Complete the sentences.
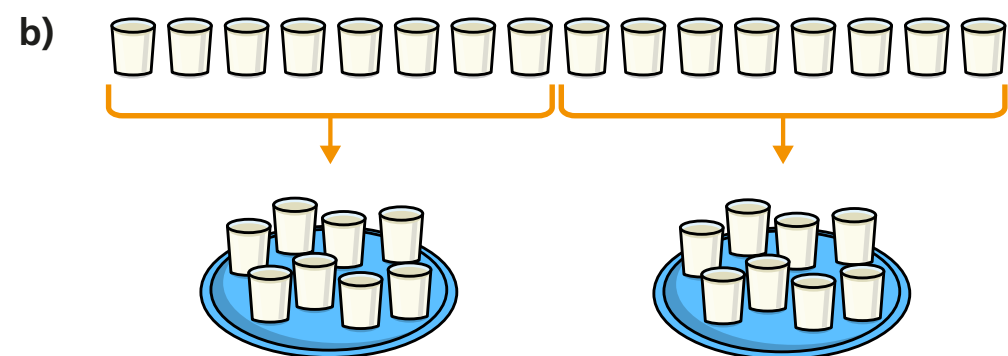
a)
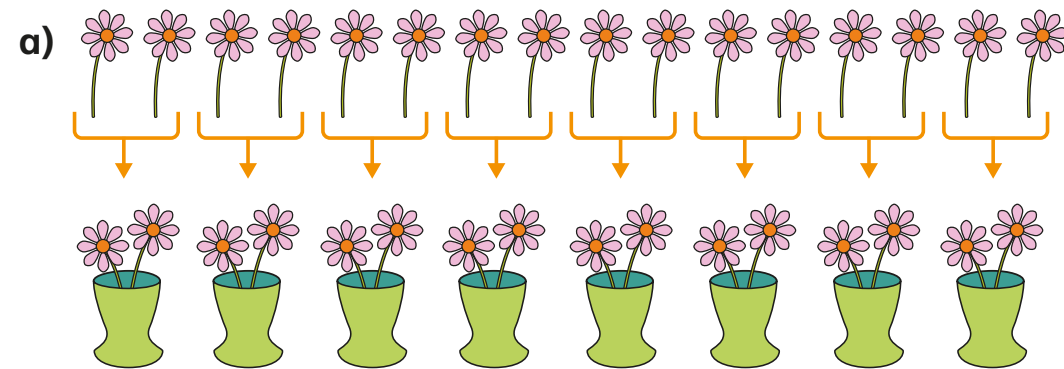
There are ☐16☐ flowers.

There are ☐8☐ vases.

Each vase has ☐2☐ flowers.

16 shared into ☐8☐ equal groups is ☐2☐
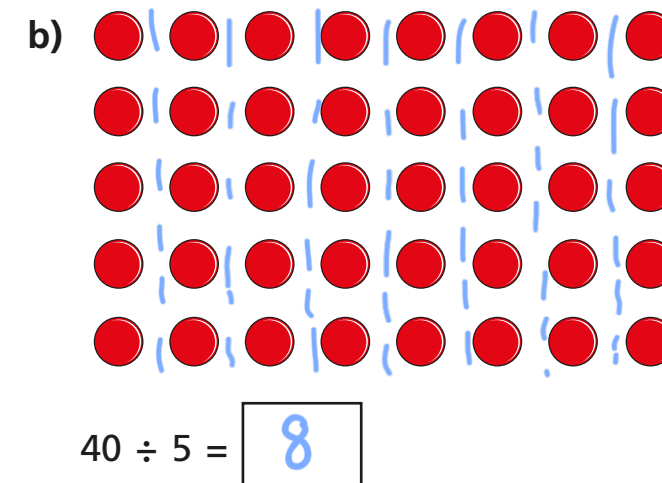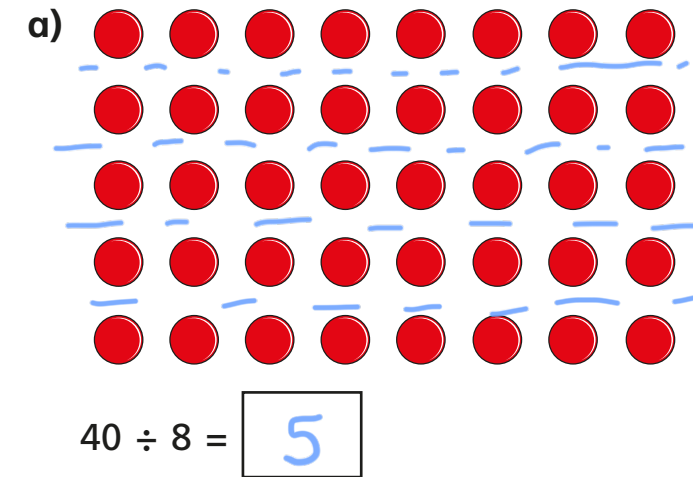
b)

There are 16 glasses of milk.

There are ☐8☐ glasses of milk on each tray.

There are ☐2☐ trays.

16 shared into ☐2☐ equal groups is ☐8☐

2 Use the arrays to help you complete the divisions.

Draw on the arrays to show your workings.

a)

40 ÷ 8 = ☐5☐

b)

40 ÷ 5 = ☐8☐

3 32 coins are shared between 8 people.

How many coins does each person get?

Complete the division.

☐32p☐ ÷ ☐8☐ = ☐4p☐

4 Complete the bar models and division statements.

a)

24	
12	12

24 ÷ 2 = 12

b)

24			
6	6	6	6

24 ÷ 4 = 6

c)

24							
3	3	3	3	3	3	3	3
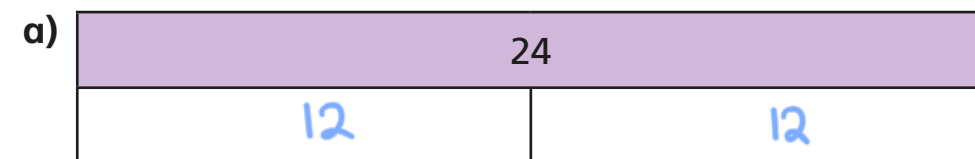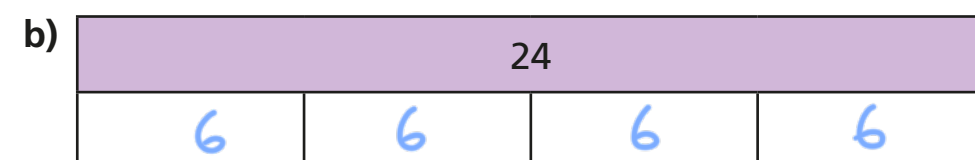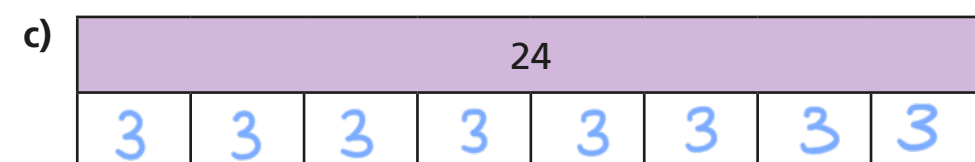
24 ÷ 8 = 3

What do you notice?

5 40 kg of potatoes are packed into 8 kg bags.

How many 8 kg bags can be filled?

5

6 a) Match the number story to the bar model.
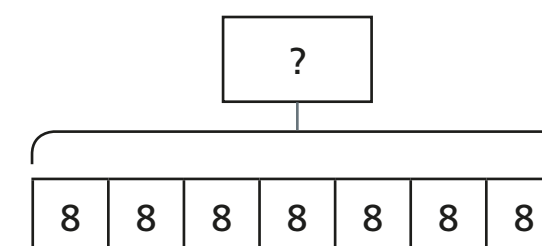
56 sweets are shared equally between 8 party bags.

56
| 8 | 8 | 8 | 8 | 8 | 8 | 8 |

56 sweets are put into party bags. There are 8 sweets in each bag.

56
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |

b) Complete the bar models.

c) Think of a number story to match this bar model.

?
| 8 | 8 | 8 | 8 | 8 | 8 | 8 |

7 Circle the numbers that divide by 8 exactly.
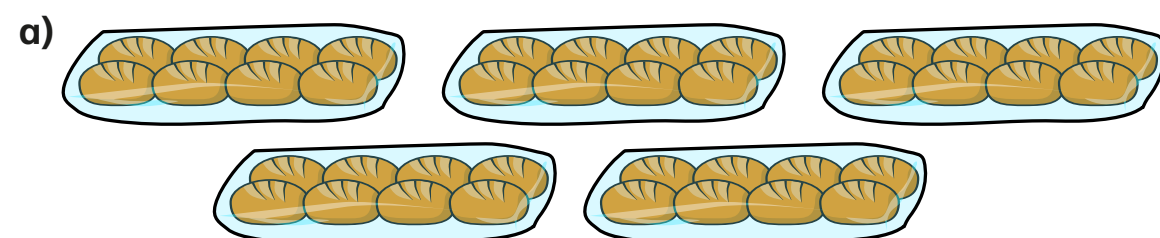
23   28   (32)   (64)   65
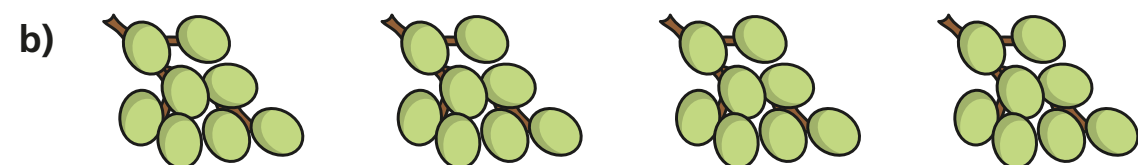
How did you work this out?

The 8 times-table

1 How many are there in total?

Complete the multiplications.

a)

$$\boxed{5} \times \boxed{8} = \boxed{40}$$

b)

$$\boxed{4} \times \boxed{8} = \boxed{32}$$
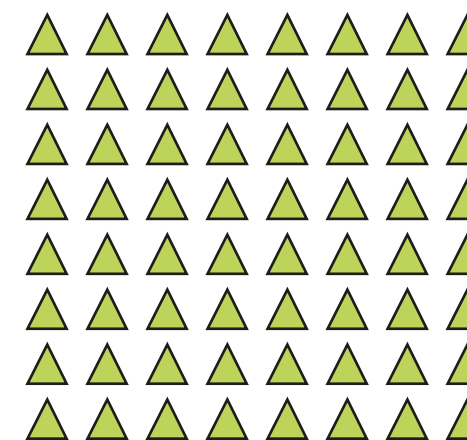
2 Complete the number tracks.

a)

0	8	16	24	32	40	48	56

b)

96	88	80	72	64	56	48	40

3 Here is an array made up of triangles.

a) What multiplication sentence can you see?

$$\boxed{8} \times \boxed{8} = \boxed{64}$$

b) What division sentence can you see?

$$\boxed{64} \div \boxed{8} = \boxed{8}$$

4 Complete the calculations.

Try to do the calculations in your head.

a) $6 \times 8 = \boxed{48}$ **e)** $72 \div 8 = \boxed{9}$

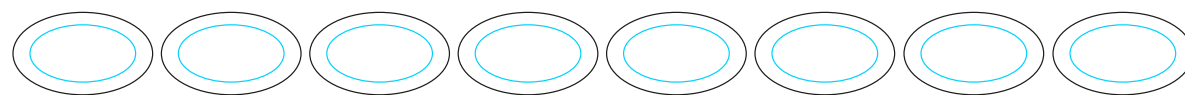**b)** $8 \times \boxed{7} = 56$ **f)** $\boxed{88} \div 11 = 8$

c) $10 \times 8 = \boxed{80}$ **g)** $\boxed{40} \div 8 = 5$

d) $\boxed{32} = 8 \times 4$ **h)** $8 \times 1 = \boxed{8}$

5 What multiplication can you see?

6 Complete the multiplications.

a) $2 \times 8 = \boxed{16}$

$4 \times 8 = \boxed{32}$

$8 \times 8 = \boxed{64}$

b) $8 = 8 \times \boxed{1}$

$16 = 8 \times \boxed{2}$

$32 = 8 \times \boxed{4}$

What patterns do you notice?

7 a) Amir draws 7 jumps of 8 on a number line.

0   8   16   24   32   40   48   56
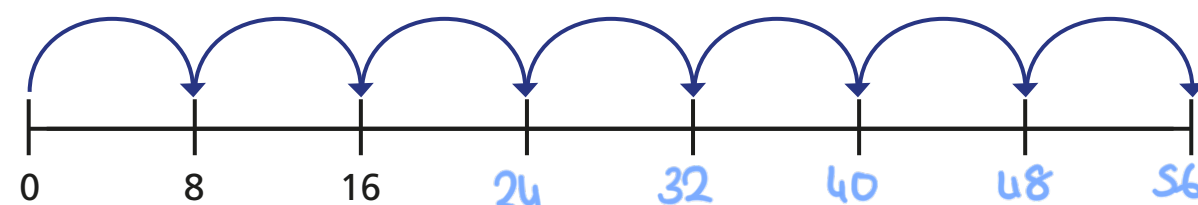
What number does Amir end on? $\boxed{56}$

Explain how you worked it out.

b) This time, Amir makes 7 jumps of 8, but starts from 1

1   9   17   25   33   41   49   57
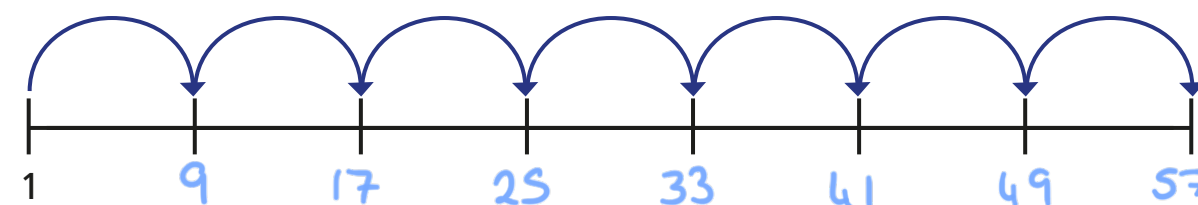
What number does Amir end on this time? $\boxed{57}$

Explain how you know.

8 Boats can be hired on a lake.

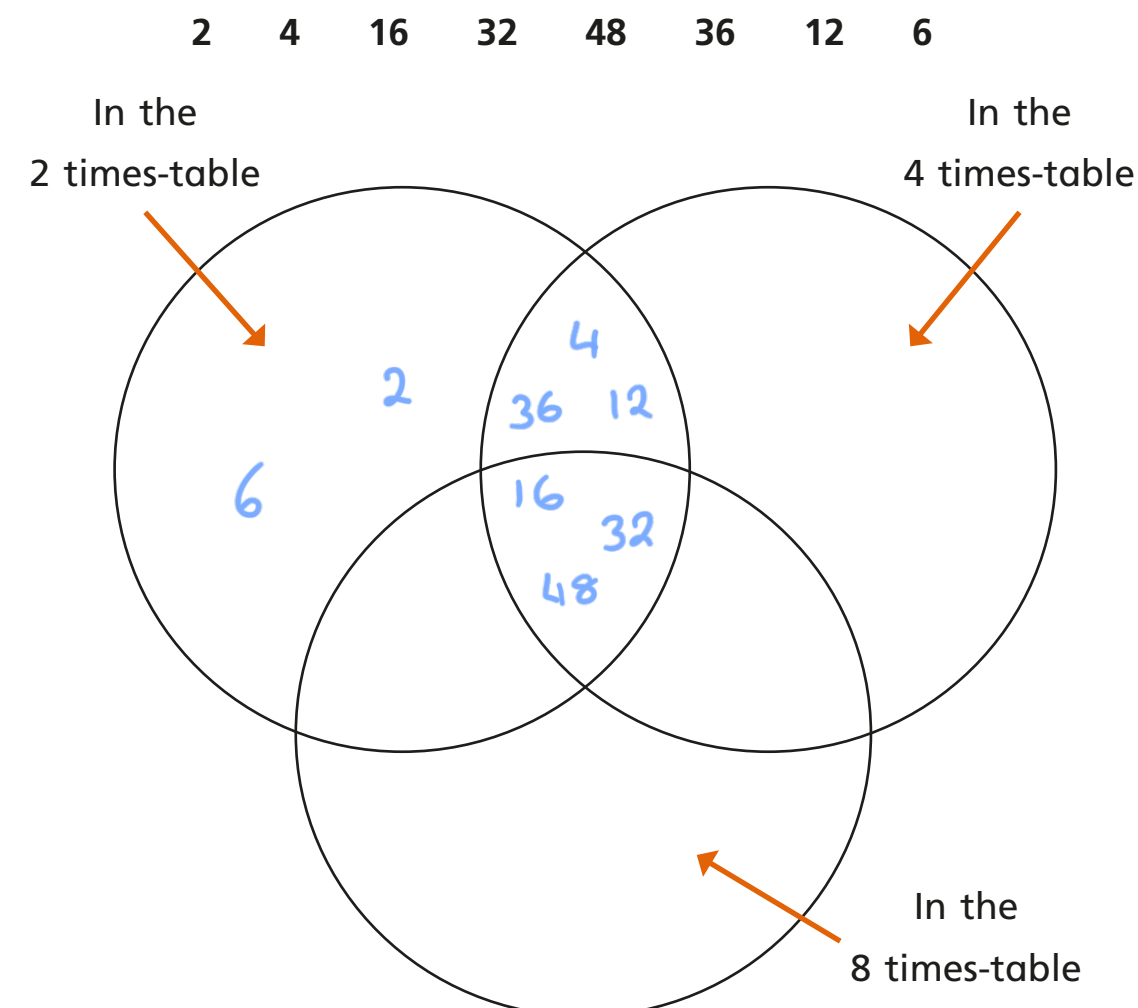There are 5 large boats and 8 small boats on the lake.

Each boat is full.

How many people are on the lake?

$\boxed{72}$

Boats for Hire

Large boat: holds 8 people

Small boat: holds 4 people

8 Put the numbers into the sorting diagram.

2   4   16   32   48   36   12   6

In the 2 times-table

In the 4 times-table

In the 8 times-table

Are any of the parts empty? Why?

Talk about it with a partner.

Question	Answer
1	a) $5 \times 2 = 10$ or $2 \times 5 = 10$ b) $3 \times 4 = 12$ or $4 \times 3 = 12$ c) $4 \times 8 = 32$ or $8 \times 4 = 32$
2	a) $9 \times 2 = 18$ or $2 \times 9 = 18$ b) $5 \times 4 = 20$ or $4 \times 5 = 20$ c) $8 \times 8 = 64$
3	a) 6 cm b) 12 cm c) 24 cm

4	a) 2
	   4
	   6
	   8
	   10
	b) 4
	   8
	   12
	   16
	   20
	c) 8
	   16
	   24
	   32
	   40
	The values in the 4 times-table are all twice the corresponding value in the 2 times-table.
	The values in the 8 times-table are all twice the corresponding value in the 4 times-table.

5	a) 24 b) 20 c) 56 d) 24 e) 32 f) 22 g) 36 h) 80
6	a) $2 \times 8 = 16$ b) $4 \times 5 = 20$ c) $24 = 12 \times 2$ d) $8 \times 0 = 0$ e) $2 \times 4 \times 8 = 64$ f) $40 = 1 \times 5 \times 8$ or $40 = 2 \times 5 \times 4$ or $40 = 4 \times 5 \times 2$ or $40 = 8 \times 5 \times 1$

Question	Answer
7	🔴 = 4 🔺 = 8 🟦 = 2
8	70

1 Complete the number sentences to describe the pictures.

a)

$4 \times 5 = \boxed{}$

$20 \div 5 = \boxed{}$
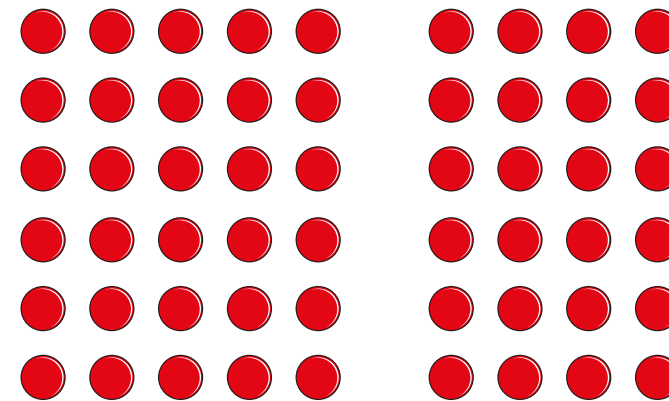
b)

$5 \times 4 = \boxed{}$

$20 \div 4 = \boxed{}$

What is the same and what is different in parts a) and b)?
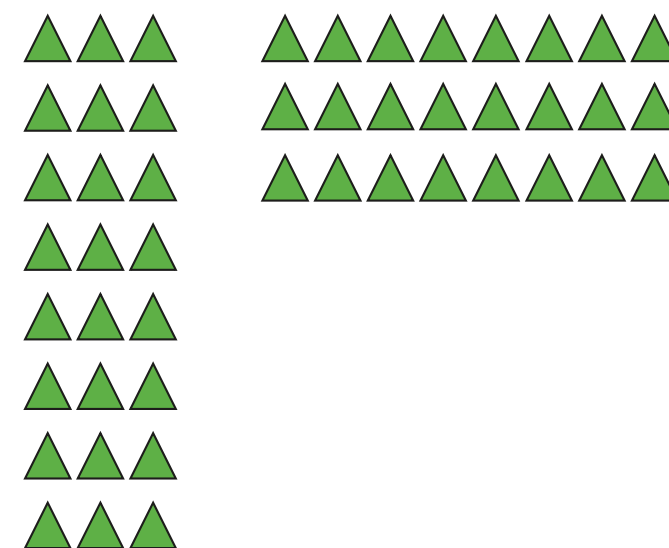
2 Write <, > or = to compare the arrays.

a)

$5 \times 6 \bigcirc 6 \times 4$

b)

$3 \times 6 \bigcirc 6 \times 3$

c)

$8 \times 3 \bigcirc 3 \times 8$
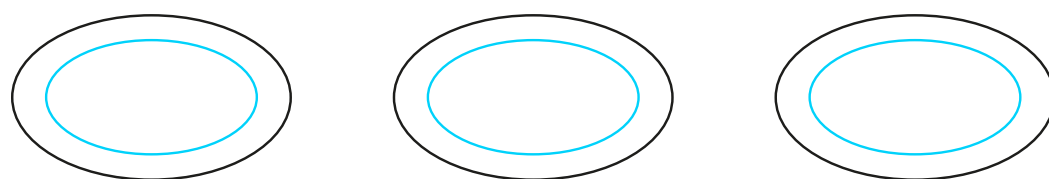
3 Rosie and Tommy each have 12 slices of melon.

a) Rosie shares her slices between 4 bowls.

How many slices are in each bowl? `3`

b) Tommy shares his slices between 3 plates.

How many slices are on each plate? `4`

c) Are there more slices of melon in a bowl or on a plate?

Explain your answer.

On a plate because 4 is greater than 3

4 Write <, > or = to compare the calculations.

a) 4 × 3 ⬭(=) 2 × 6   **c)** 5 × 3 ⬭(>) 3 × 4

b) 8 × 3 ⬭(=) 4 × 6   **d)** 3 × 4 ⬭(<) 4 × 5

e) 20 ÷ 4 ⬭(>) 20 ÷ 5   **g)** 30 ÷ 10 ⬭(<) 30 ÷ 6

f) 24 ÷ 2 ⬭(=) 36 ÷ 3   **h)** 18 ÷ 2 ⬭(>) 18 ÷ 3

How did you work this out? Talk about it with a partner.

5 Here are some calculation cards.

| 30 ÷ 6 | 4 × 6 | 27 ÷ 3 | 4 × 8 |

| 8 × 3 | 12 × 2 | 5 × 6 | 18 ÷ 3 |

Write each calculation in the table.

Less than 6 × 4	Equal to 6 × 4	Greater than 6 × 4
30÷6	8×3	5×6
27÷3	4×6	4×8
18÷3	12×2	

Write one more calculation in each column.

Did you have to work out all the calculations?

6 Complete the statements. _e.g._

a) 7 × 3 > `6` × 3   **c)** 30 ÷ `6` = `1` × 5

b) 24 ÷ `12` < 2 × 2   **d)** 12 × `1` > 12 ÷ `2`

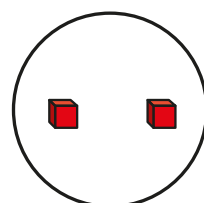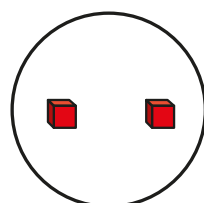How many different ways can you complete the statements?

Related calculations
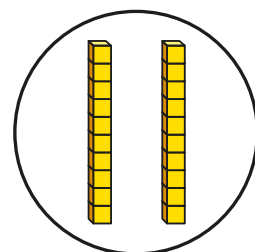
1 Complete the number sentences.

a)
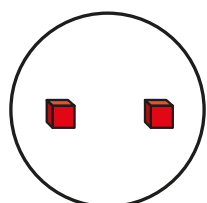
3 × 2 ones = $\boxed{6}$ ones

3 × 2 = $\boxed{6}$

b)
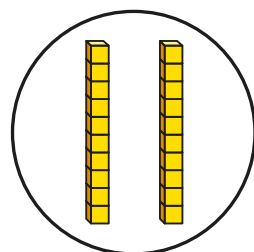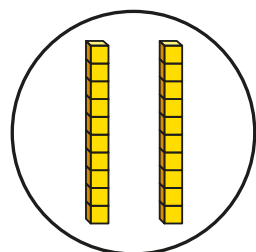
3 × 2 tens = $\boxed{6}$ tens

3 × 20 = $\boxed{60}$

2 Use base 10 to represent the multiplications.

Complete the number sentences.

a) 2 × 4 = $\boxed{8}$

2 × 40 = $\boxed{80}$

b) 5 × 3 = $\boxed{15}$

5 × 30 = $\boxed{150}$

c) 5 × 2 = $\boxed{10}$

5 × 20 = $\boxed{100}$

d) 2 × 8 = $\boxed{16}$

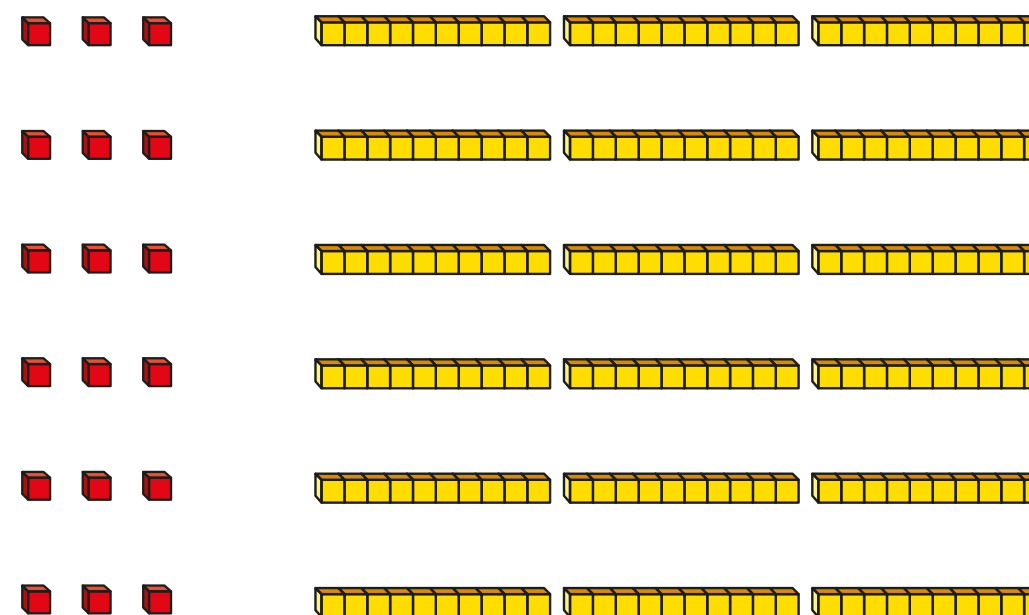80 × 2 = $\boxed{160}$

3 Nijah makes these arrays.
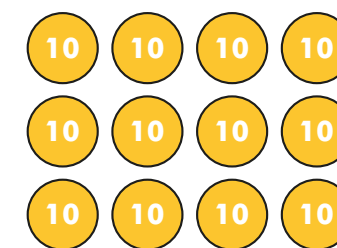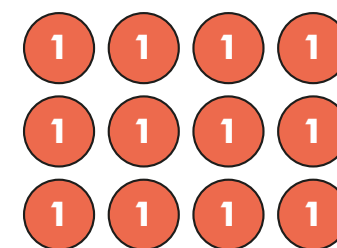
Complete the number sentences.

4 × 3 = $\boxed{12}$ 4 × 30 = $\boxed{120}$

What is the same about the arrays? What is different?

4 Scott uses base 10 to make two related calculations.
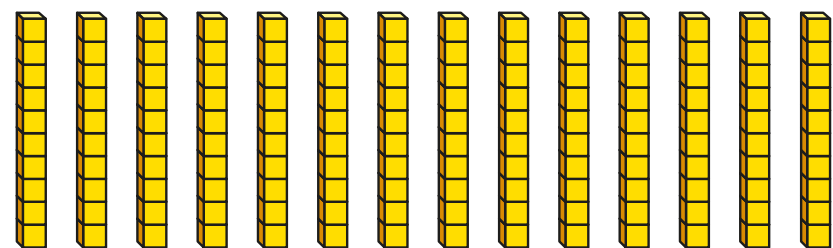
Use the base 10 to complete Scott's calculations.

6 × 3 = $\boxed{18}$ 6 × 30 = $\boxed{180}$

How does the answer to the first calculation help you work out the second calculation?
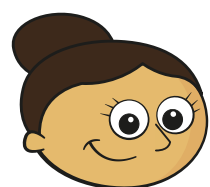
5 Use these pieces of base 10 to complete the divisions.

$14 \div 2 = \boxed{7}$ $140 \div 2 = \boxed{70}$

6

I know
$5 \times 7 = 35$

Use Dora's fact to complete the calculations.

a) $5 \times 70 = \boxed{350}$ d) $35 \div 5 = \boxed{7}$

b) $7 \times 5 = \boxed{35}$ e) $350 \div 5 = \boxed{70}$

c) $50 \times 7 = \boxed{350}$ f) $350 \div 7 = \boxed{50}$

7 Mr Jones buys 12 large jugs.

The total cost of the jugs is £240

How much does each jug cost?

Each jug costs $\boxed{£20}$

How did you work this out?

8 Complete the number sentences.

a) $3 \times \boxed{70} = 210$ c) $4 \times 90 = \boxed{360}$

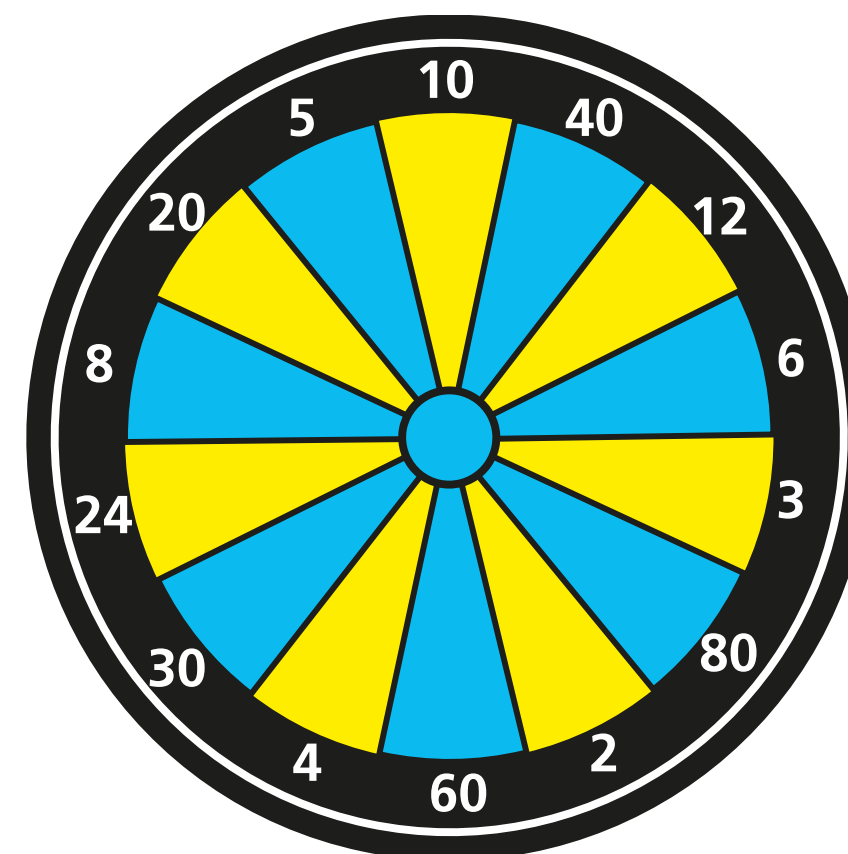b) $240 \div 6 = \boxed{40}$ d) $120 \div \boxed{60} = 2$

9 Huan throws two darts at the dartboard.

He multiplies the numbers he hits together.

Huan's score is 240

What two numbers could the darts have landed in?

E.g. $\boxed{40}$ and $\boxed{6}$

How many different answers can you find?