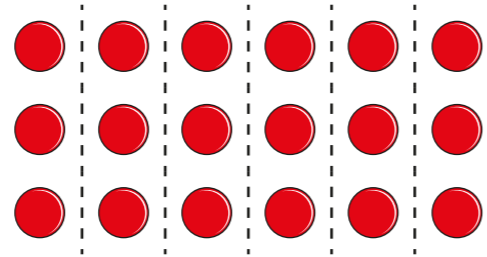


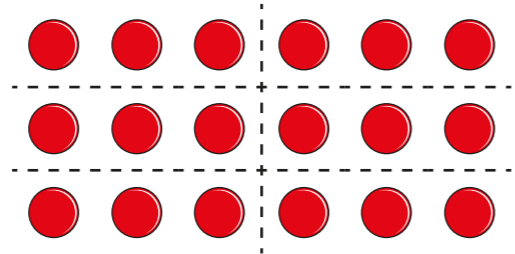
Efficient division

1 Use the arrays to complete the divisions.

a) $18 \div 6 = \square$



b) $18 \div 3 \div 2 = \square$

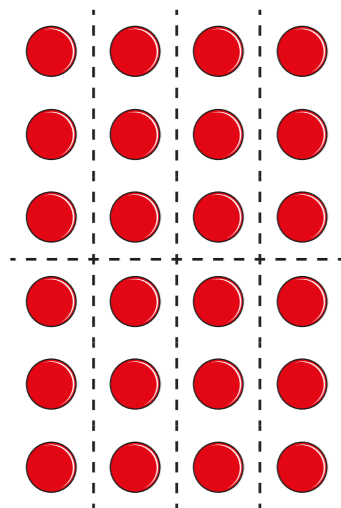


What do you notice?

c) Complete the number sentence.

$18 \div \square = 18 \div \square \div \square$

2 Use the array to complete the sentences.



$24 \div 8 = 24 \div \square \div \square$

$24 \div \square \div \square = \square$

So $24 \div 8 = \square$

3 Use factors to complete the sentences.

None of your factors should be 1

a) $16 \div 8 = 16 \div \square \div \square$

b) $27 \div 9 = 27 \div \square \div \square$

c) $32 \div 4 = 32 \div \square \div \square$

d) $40 \div 8 = 40 \div \square \div \square \div \square$

Compare answers with a partner.

4 Esther and Huan are using factors to work out $176 \div 8$

Complete their workings.

Esther

$176 \div 2 = 88$
 $88 \div 4 = \square$
 So $176 \div 8 = \square$

Huan

$176 \div 4 = \square$
 $\square \div \square = \square$
 So $176 \div 8 = \square$

What do you notice?

5 Use factors to work out the divisions.

a) $684 \div 4 = \square$

c) $496 \div 8 = \square$

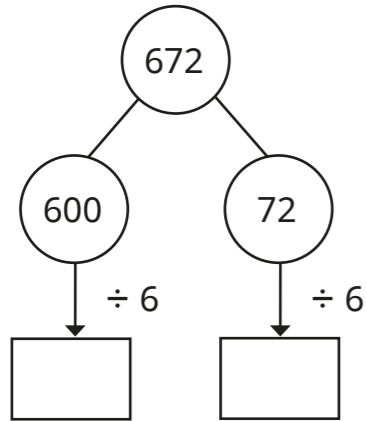
b) $396 \div 6 = \square$

d) $855 \div 9 = \square$

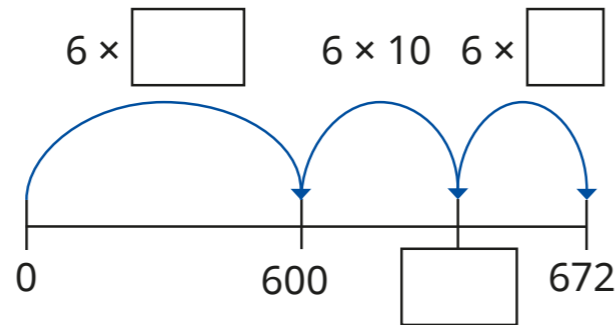
6 Here are four different ways to work out $672 \div 6$

a) Complete the workings for each method.

Method 1



Method 3

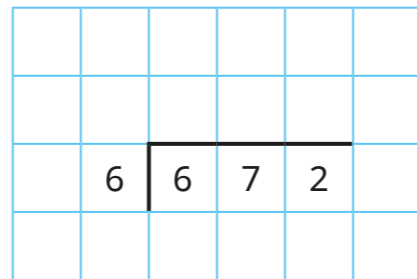


Method 2

Factor pair of 6: 2 and 3

$672 \div 2 = \square$
 $\square \div 3 = \square$

Method 4



Which method did you prefer?

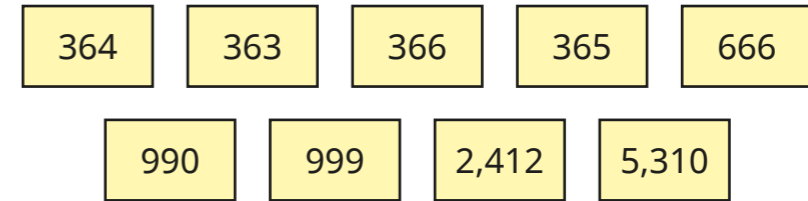
b) Use your preferred method to work out the divisions.

$856 \div 8 = \square$ $4,568 \div 4 = \square$

$468 \div 9 = \square$ $6,642 \div 3 = \square$

Compare methods with a partner.

7 Write the numbers in the table.



Divisible by 2	Divisible by 3	Divisible by 5	Divisible by 6

Do any of the numbers go in more than one column?

8

12 divided by 4 is equal to 3

Use this fact to work out the divisions.

a) $1,200 \div 4 = \square$ c) $1,200 \div 40 = \square$
 b) $120 \div 3 = \square$ d) $12,120 \div 30 = \square$

9

a) Fill in the single-digit missing number so that the division does not have a remainder.

$4,896 \div \square$

How many ways can you find?
 Compare answers with a partner.

b) Are there fewer or more solutions that have a remainder?