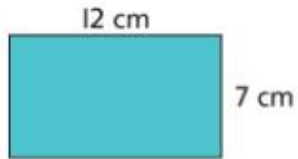




End of unit check

- 1 What is $2\frac{1}{2}$ km in metres?
- A $2\frac{1}{2}$ m B $2,000\frac{1}{2}$ m C 2,500 m D 250 m

- 2 What is the perimeter?



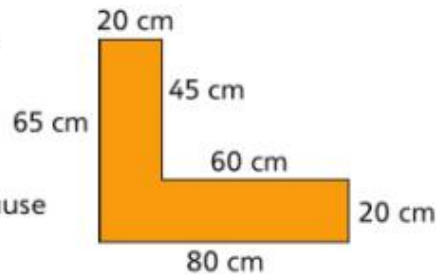
- A 48 cm B 19 cm C 84 cm D 38 cm

- 3 Which of these shapes has a perimeter of 20 cm?

- A Square with length 5 cm
 B Rectangle with length 10 cm and width 2 cm
 C Square with length 10 cm
 D Rectangle with length 12 cm and width 8 cm

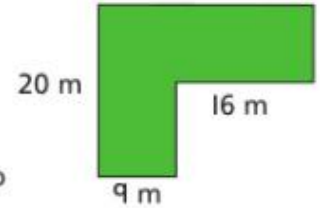
- 4 Calculate the perimeter of this shape.

- A 185 cm
 B 290 cm
 C It does not have a perimeter because it is not a square or a rectangle.
 D 280 cm



- 5 What length of fence does a farmer need to go around this field?

- A 45 m
 B 90 m
 C 65 m
 D He needs three more measurements to work out the perimeter.

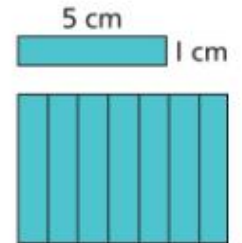


- 6 Sam has some 10 cm pencils. He uses them to make the perimeter of a shape. Which of these shapes is not possible?

- A perimeter = 60 cm C perimeter = 20 cm
 B perimeter = 40 cm D perimeter = 100 cm

- 7 Jessica has some rectangular coloured tiles. They are 5 cm long and 1 cm wide. She puts 7 tiles together to make a large rectangle. What is the perimeter of the large rectangle?

The perimeter is cm.





Power Up

Complete the table.

\times	9	12	3	6	10	7	8	11
10				60	100		80	
100	900		300					1,100
1,000		12,000				7,000		

I wonder how I can use multiplying by 10 to help me multiply by 100.



Multiplying by multiples of 10 and 100

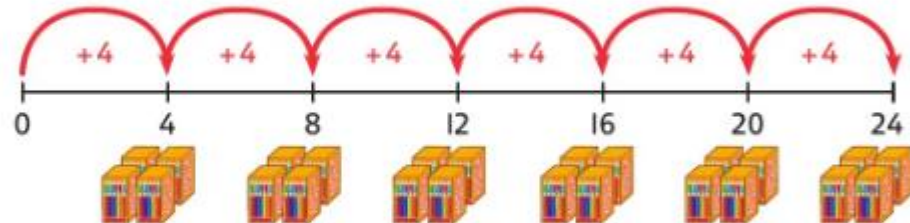
Discover



- 1 a) There are 4 packs of pencils in each multipack.
How many packs of pencils are there in 6 multipacks?
- b) There are 10 pencils in each pack.
How many pencils in total are in 6 multipacks?

Share

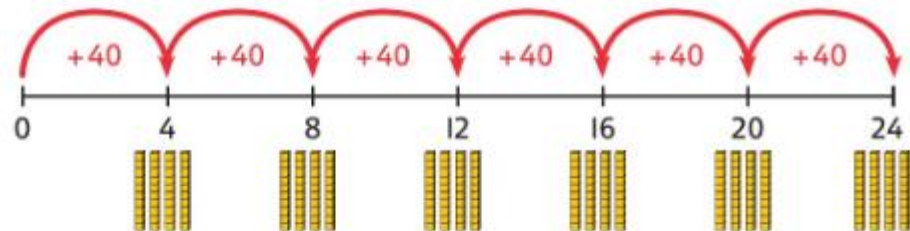
- a) There are 4 packs of pencils in each multipack.
There are 6 multipacks.



$$6 \times 4 = 24$$

There are 24 packs of pencils in 6 multipacks.

- b) There are 10 pencils in each pack. There are 4 packs in a multipack.



$$4 \times 10 = 40$$

There are 40 pencils in a multipack and 6 multipacks.

$$6 \times 40 = 240$$

There are 240 pencils in total in 6 multipacks.

To work out 6×40 , I did
 $40 + 40 + 40 + 40 + 40 + 40$

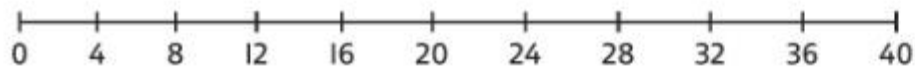


I saw there were 24 packs
of 10 pencils. $24 \times 10 = 240$



Think together

- 1 a) How many packs of pencils are there?



$$\square \times 4 = \square$$

There are \square packs of pencils.

- b) How many pencils are there in total?

$$\square \times 40 = \square$$

There are \square pencils.

Remember, there are 10 pencils in each pack.

- 2 A tub contains 100 pins.

There are 5 tubs in a pack.

- a) Alex has 3 packs. How many tubs are there in total?

There are \square tubs of pins.

- b) How many pins are there in total in 3 packs?

There are \square pins.



- 3 Ambika and Richard are working out the answer to this question.

50 is 5 tens.
 7×5 tens = 35 tens = 350.

I did $7 \times 5 = 35$ and then multiplied my answer by 10. So $35 \times 10 = 350$.



Ambika

Richard

- a) Use Ambika and Richard's methods to work out these calculations.

$$6 \times 20 = \square$$

$$4 \times 70 = \square$$

$$60 \times 4 = \square$$

$$30 \times 9 = \square$$

- b) Change Ambika and Richard's methods to work out these calculations.

$$6 \times 200 = \square$$

$$4 \times 700 = \square$$

$$600 \times 4 = \square$$

$$300 \times 9 = \square$$

Try to use your knowledge of times-tables to help you work out the answers.

200 is made up of 2 hundreds. I think this will help me change Ambika's method.

CHALLENGE

Multiplying by multiples of 10 and 100



a) How many boxes of pencils are there?

$$\square \times 5 = \square$$

There are \square boxes of pencils.

b) How many pencils are there in total?

$$\square \times \square = \square$$

There are \square pencils in total.



a) How many jars of sweets are there?

$$\square \times \square = \square$$

There are \square jars of sweets.

b) How many sweets are there in total?

$$\square \times \square = \square$$

There are \square sweets in total.

3 Work out 7×30 using three different methods.

Method 1:

$$7 \times 30 =$$

$$\square + \square + \square + \square + \square + \square + \square = \square$$

Method 2:

$$7 \times 3 \text{ ones} = \square \text{ ones} = \square$$

$$\text{So, } 7 \times 3 \text{ tens} = \square \text{ tens} = \square$$

Method 3:

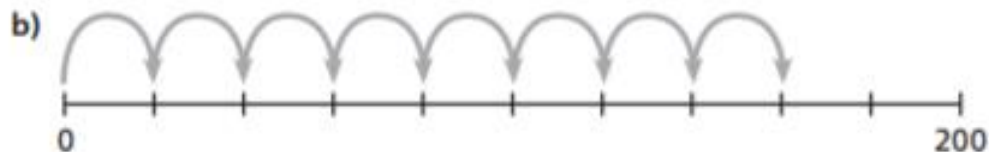
$$7 \times 3 = \square$$

$$\text{So, } \square \times 10 = \square$$

4 What calculations are shown on the number lines?



$$\square \times \square = \square$$



$$\square \times \square = \square$$

5 Find the solutions to these calculations.

a) $7 \times 4 =$

$7 \times 40 =$

$7 \times 400 =$

b) $8 \times 30 =$

$8 \times 300 =$

$3 \times 8 =$

c) $9 \times 2 =$

$9 \times 20 =$

$200 \times 9 =$

d) $9 \times 50 =$

$80 \times 9 =$

$600 \times 4 =$

6 Work out the missing number to make the calculation correct.

$8 \times 200 + 8 \times 50 + 8 \times 30 + 8 \times 20 = 8 \times$

Explain your method.



Reflect

Choose one of these calculations and explain how you can use $7 \times 4 = 28$ to work it out.

7×40

70×4

700×4

7×400

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