

Please make sure that you print this resource at 100% so that all measurements are correct.

To do this, follow the relevant steps below.

Adobe Reader or Adobe Acrobat

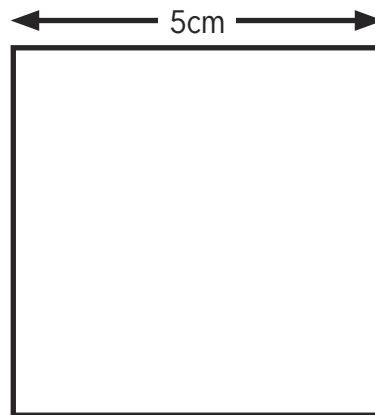
- Adobe Reader is a free PDF viewer, from Adobe. To install a copy of Adobe Reader, go to <https://get.adobe.com/uk/reader/>.
- Once Adobe Reader is installed, open your PDF.
- Go to File>Print.
- Under 'Page Sizing & Handling', select 'Size'.
- From here, make sure that 'Actual Size' is selected.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.

Foxit Reader

- Go to File>Print.
- Set the 'Scaling' to 'None'.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.

Web Browser

- If printing from a web browser, such as Chrome, Firefox or Microsoft Edge make sure that your printer is set to print at 100%, either by unticking 'Fit to Page' or selecting 'Actual Size'.
- Print this page as a test, making sure that the shape below is the correct size once printed.
- If the test print is correct, print your PDF.





Calculating the Perimeter of Squares

I can calculate the perimeter of squares.



Formula:

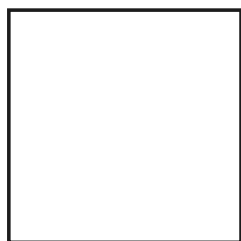
$$4 \times a = \text{perimeter}$$

(a = length of a side)

1. Calculate the perimeter of each square. Fill in the missing box to calculate the perimeter. The first one has been done for you.

a)

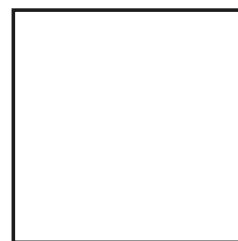
8m



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

b)

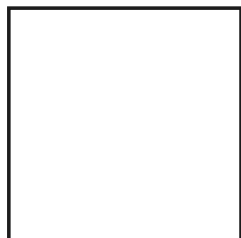
3m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

c)

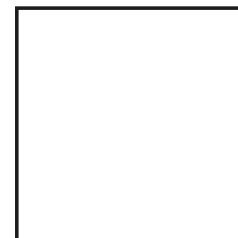
7m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

d)

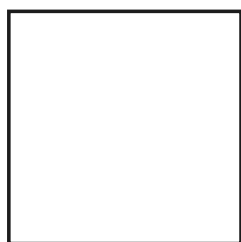
20m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

e)

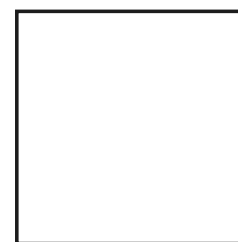
50m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

f)

100m



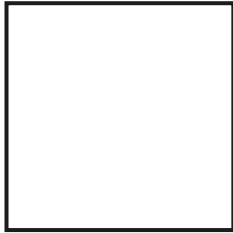
$$4 \times \boxed{} = \boxed{} \text{ m}$$



Calculating the Perimeter of Squares

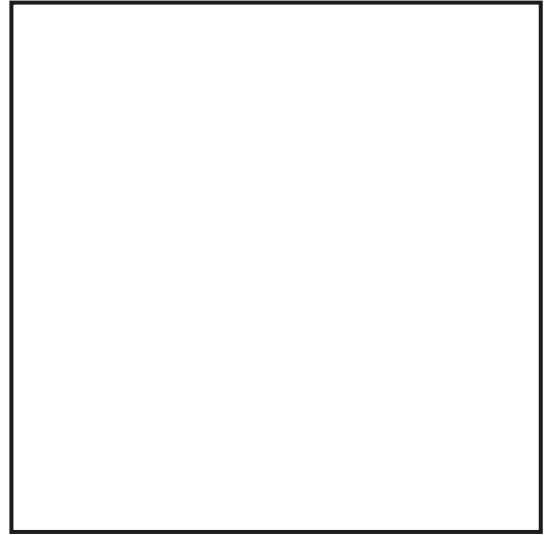
2. The lengths of these squares haven't been given. Measure the lengths in centimetres and calculate the perimeter of each shape.

a)



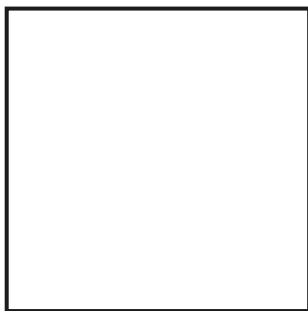
Perimeter = _____ cm

b)



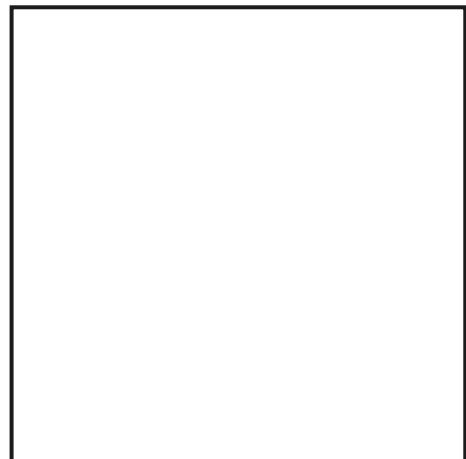
Perimeter = _____ cm

c)



Perimeter = _____ cm

d)



Perimeter = _____ cm

3. A farmer has a square field which he needs to put fencing around. The sides of the field measure 30m. The fencing costs £5 per metre. How much will it cost him to fence the field? Show how you worked out your answer.



Calculating the Perimeter of Squares

Answers

Question 1

- a. $4 \times 8m = 32m$
- b. $4 \times 3m = 12m$
- c. $4 \times 7m = 28m$
- d. $4 \times 20m = 80m$
- e. $4 \times 50m = 200m$
- f. $4 \times 100m = 400m$

Question 2

- a. $12cm$
- b. $28cm$
- c. $16cm$
- d. $24cm$

Question 3

£600



Calculating the Perimeter of Squares

I can calculate the perimeter of squares.



Formula:

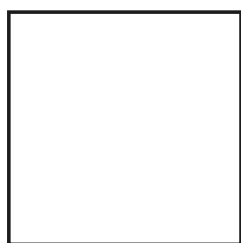
$$4 \times a = \text{perimeter}$$

(a = length of a side)

1. Calculate the perimeter of each square. Fill in the missing box to calculate the perimeter. The first one has been done for you.

a)

35m



$$4 \times \boxed{35} = \boxed{140} \text{ m}$$

b)

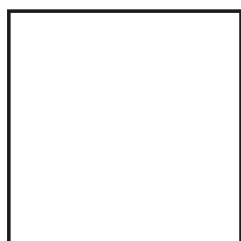
7.5m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

c)

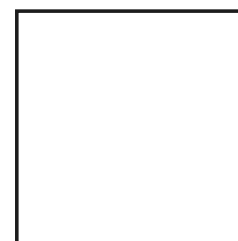
60m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

d)

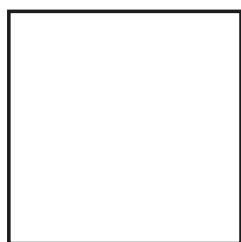
15m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

e)

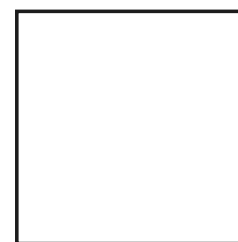
75m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

f)

30m



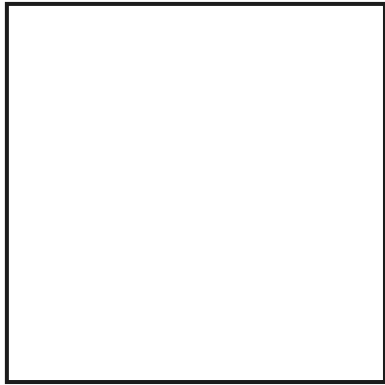
$$4 \times \boxed{} = \boxed{} \text{ m}$$



Calculating the Perimeter of Squares

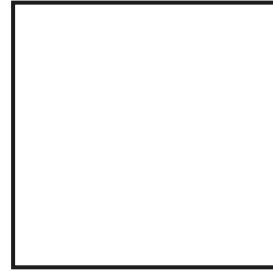
2. The lengths of these squares haven't been given. Some measurements are half centimetres. Measure the lengths in centimetres and calculate the perimeter of each shape.

a)



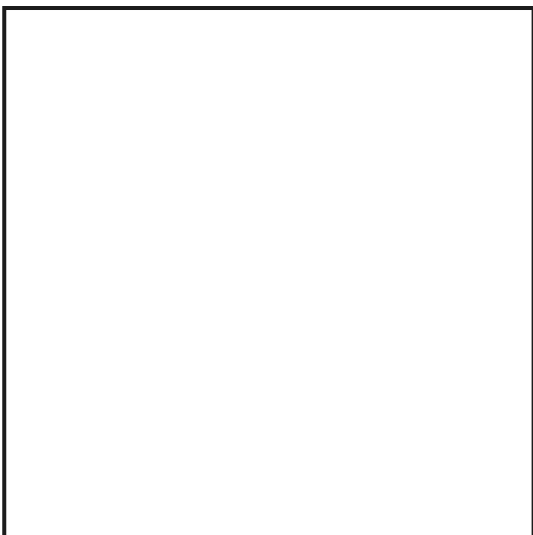
Perimeter = _____ cm

b)



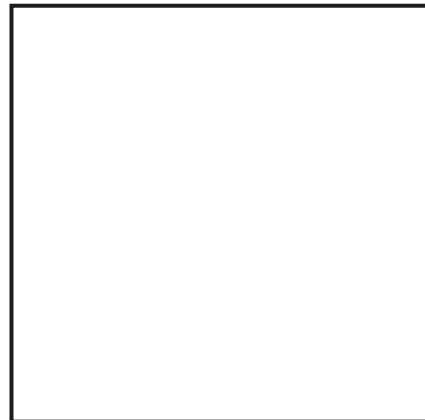
Perimeter = _____ cm

c)



Perimeter = _____ cm

d)



Perimeter = _____ cm



Calculating the Perimeter of Squares

3. Here are the perimeters of some squares whose sides are whole-number measurements:

20cm

12cm

48cm

32cm

Cara says:

I can tell whether a number will be a perimeter of a square or not, as I have noticed something about these numbers.



a) What do you think Cara has noticed about these numbers?

b) Use this information to write a different perimeter of a square whose sides are whole-number measurements:



Calculating the Perimeter of Squares

Answers

Question 1

- a. $4 \times 35m = 140m$
- b. $4 \times 7.5m = 30m$
- c. $4 \times 60m = 240m$
- d. $4 \times 15m = 60m$
- e. $4 \times 75m = 300m$
- f. $4 \times 30m = 120m$

Question 2

- a. *20cm*
- b. *14cm*
- c. *28cm*
- d. *22cm*

Question 3

- a. Answer indicates that the perimeters of squares with whole-number side measurements are multiples of 4.
- b. A perimeter measurement where the answer is a multiple of 4.



Calculating the Perimeter of Squares

I can calculate the perimeter of squares.



Formula:

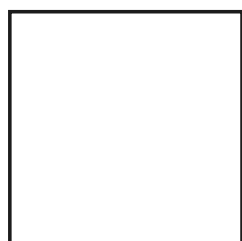
$$4 \times a = \text{perimeter}$$

(a = length of a side)

1. Calculate the perimeter of each square. The first one has been done for you.

a)

32m



$$4 \times \boxed{32} = \boxed{128} \text{ m}$$

b)

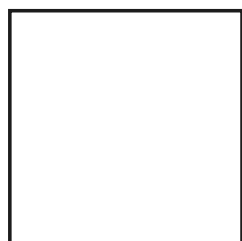
6.5m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

c)

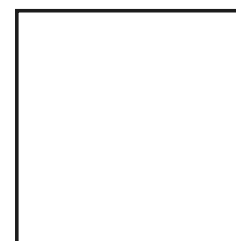
125m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

d)

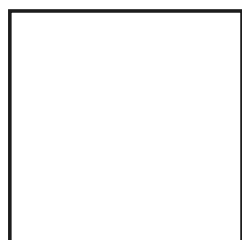
24m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

e)

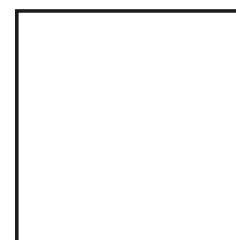
21m



$$4 \times \boxed{} = \boxed{} \text{ m}$$

f)

44m



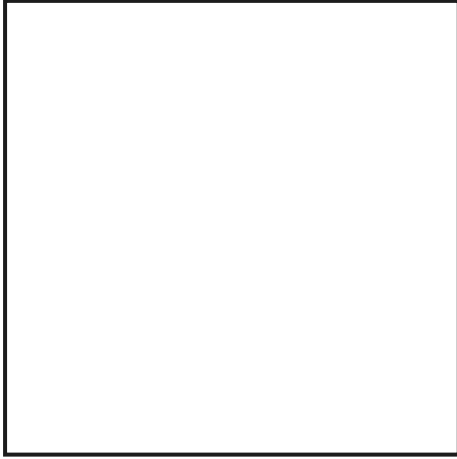
$$4 \times \boxed{} = \boxed{} \text{ m}$$



Calculating the Perimeter of Squares

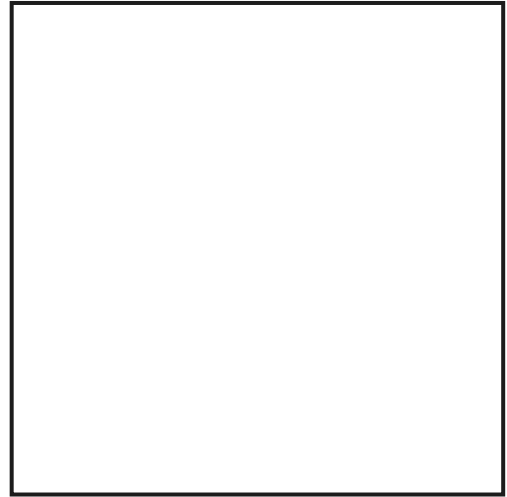
2. The lengths of these squares haven't been given. Some measurements are half centimetres. Measure the lengths in centimetres and calculate the perimeter of each shape.

a)



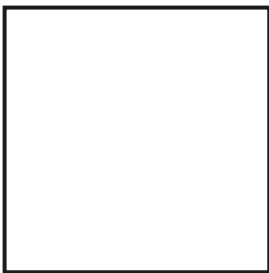
Perimeter = _____ cm

b)



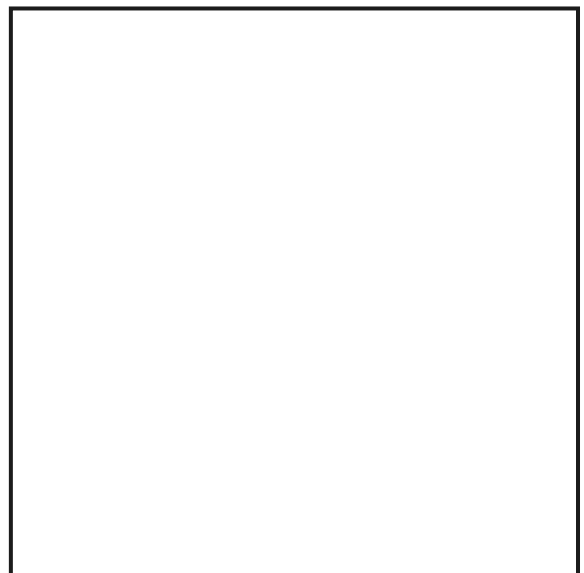
Perimeter = _____ cm

c)



Perimeter = _____ cm

d)



Perimeter = _____ cm



Calculating the Perimeter of Squares

3. Ty says:

I know that 48cm could be the perimeter of a square with whole-number side measurements, but 50cm could not be.



a) Can you explain how to decide whether a measurement could be the perimeter of a square with whole-number side measurements?

b) Use this information to determine if these numbers could be perimeters of squares (with whole-number measurements). Place a tick beside the numbers which are perimeters of squares.

100cm

35cm

21cm

44cm

22cm

36cm

110cm

120cm

78cm



Calculating the Perimeter of Squares

Answers

Question 1

- a. $4 \times 32m = 128m$
- b. $4 \times 6.5m = 26m$
- c. $4 \times 125m = 500m$
- d. $4 \times 24m = 96m$
- e. $4 \times 21m = 84m$
- f. $4 \times 44m = 176m$

g.

Question 2

- a. $24cm$
- b. $26cm$
- c. $14cm$
- d. $30cm$

Question 3

- a. Answer indicates that the perimeters of squares with whole-number side measurements are multiples of 4.
- b.

100cm ✓	35cm	21cm
44cm ✓	22cm	36cm ✓
110cm	120cm ✓	78cm