Class 3 Home Learning, week beginning 8th June 2020

Maths - Year 4

Summer Term, Week 4 (w/c 11th May)

Lesson 3

Perimeter of rectilinear shapes

Please watch the video before starting the questions.

I have not divided this work into challenges. Please work your way through the questions and do as many as you can. The answers are included in this document.
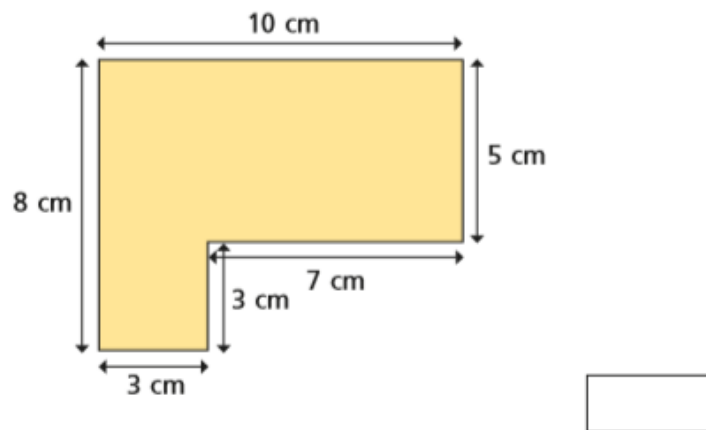
I have also included some reasoning and problem solving.

These pages do not need to be printed out. Please write the short date you do the work and the above question in your maths book, underlining them neatly with a ruler.
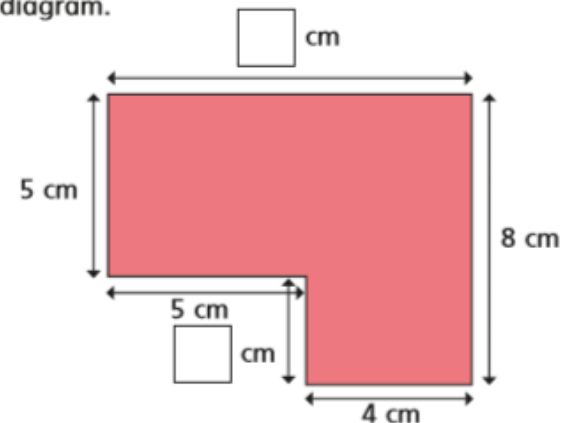
1 The length of each square on the grid is 1 cm.
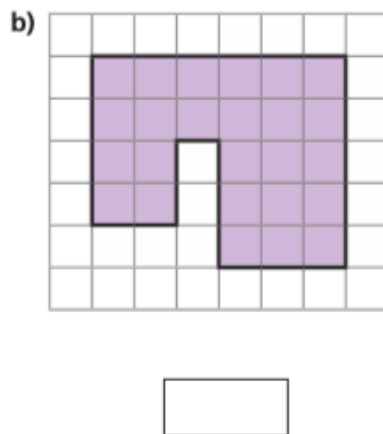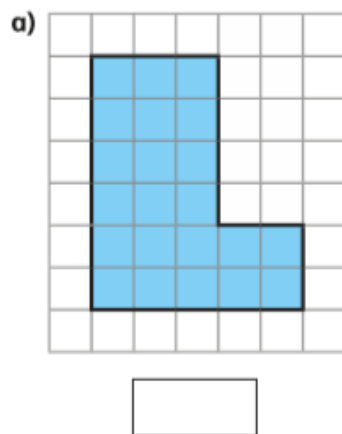
Work out the perimeter of the shapes.
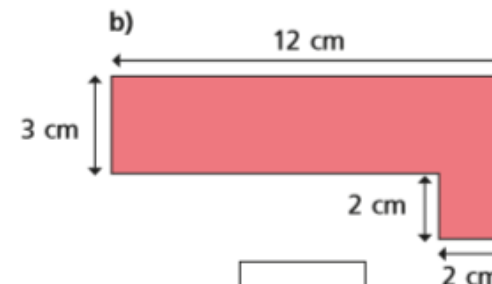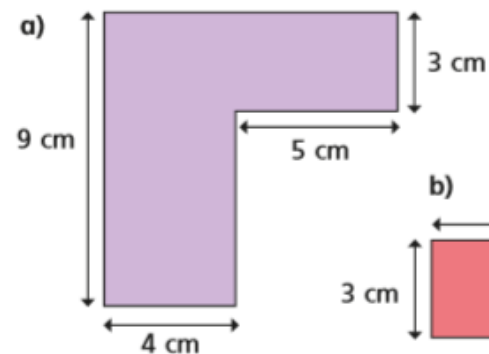
a)

b)

2 Work out the perimeter of the shape.

10 cm

5 cm

8 cm

7 cm

3 cm

3 cm

3 a) Work out the missing lengths and label them on the diagram.

☐ cm

5 cm

8 cm

5 cm

☐ cm

4 cm

b) What is the perimeter of the shape?

☐

4 Work out the perimeter of each shape.
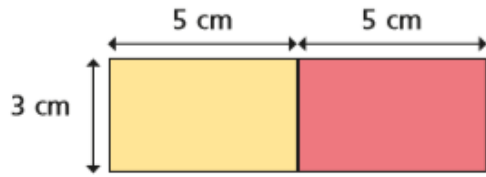
a)

3 cm

9 cm

5 cm

b)

12 cm

3 cm

4 cm

2 cm

2 cm

☐

☐

5 Mo puts two 5 cm by 3 cm rectangles next to each other.

5 cm   5 cm

3 cm
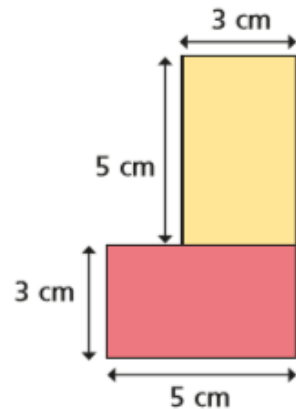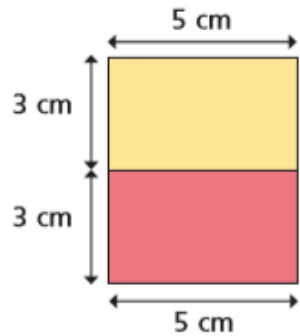
The perimeter of each small rectangle is 16 cm, so the perimeter of my larger rectangle must be 2 × 16 cm = 32 cm.

a) Is Mo correct? _____

Work out the perimeter of the larger rectangle to check your answer.

b) Mo puts the rectangles together in different ways.

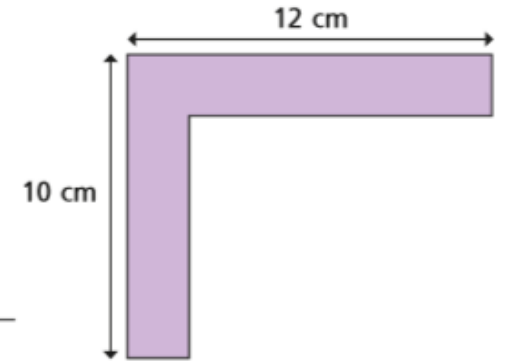Work out the perimeter of each large shape.

5 cm

3 cm

3 cm

5 cm
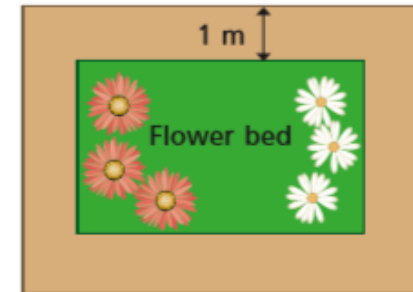
3 cm

5 cm

3 cm

5 cm

6 Dani thinks there isn't enough information to work out the perimeter of the shape.

12 cm

10 cm

Is Dani correct? _____

Explain your answer.

7 A rectangular flower bed is 5 m long and 3 m wide.

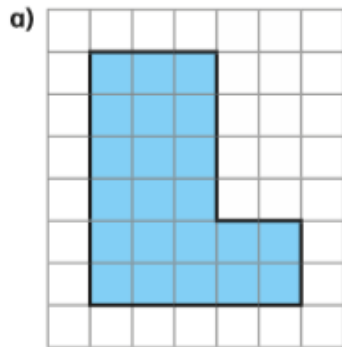The path around the flower bed is 1 m wide.

1 m

Flower bed

a) What is the perimeter of the flower bed?
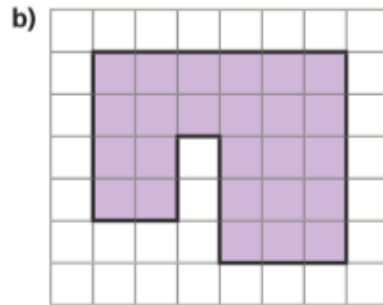
b) What is the perimeter of the outside of the path?

Can I calculate the perimeter of rectilinear shapes? (Y4)

ANSWERS

1 The length of each square on the grid is 1 cm.
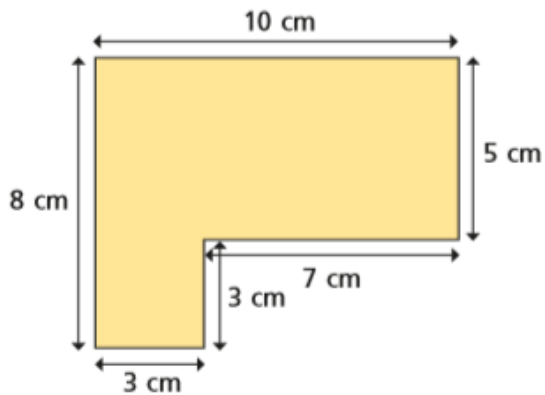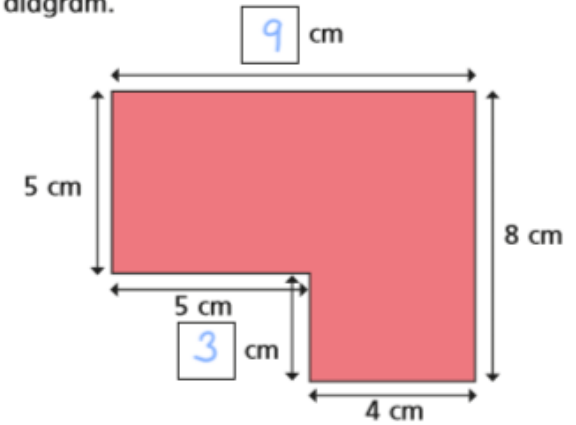
Work out the perimeter of the shapes.

a)

22cm

b)

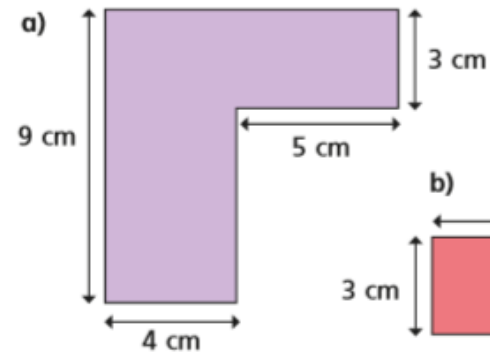26cm

2 Work out the perimeter of the shape.

10 cm

8 cm

5 cm

7 cm

3 cm

3 cm

36 cm

3 a) Work out the missing lengths and label them on the diagram.

9 cm

5 cm

8 cm

5 cm

3 cm

4 cm

b) What is the perimeter of the shape?

34cm

4 Work out the perimeter of each shape.

a)

3 cm

9 cm

5 cm

4 cm

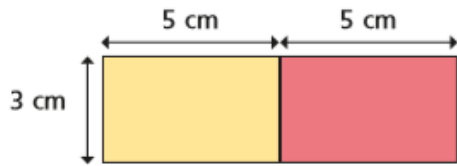36cm

b)

12 cm

3 cm

2 cm

2 cm
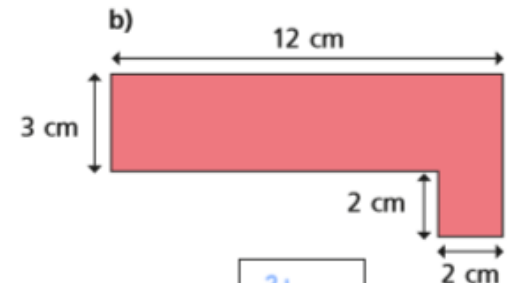
34cm

5 Mo puts two 5 cm by 3 cm rectangles next to each other.

5 cm | 5 cm

3 cm

> The perimeter of each small rectangle is 16 cm, so the perimeter of my larger rectangle must be 2 × 16 cm = 32 cm.
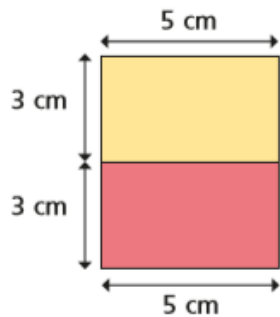
a) Is Mo correct? __No__

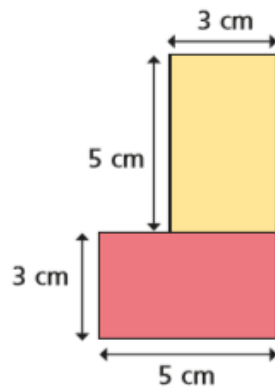Work out the perimeter of the larger rectangle to check your answer.

26 cm

b) Mo puts the rectangles together in different ways.
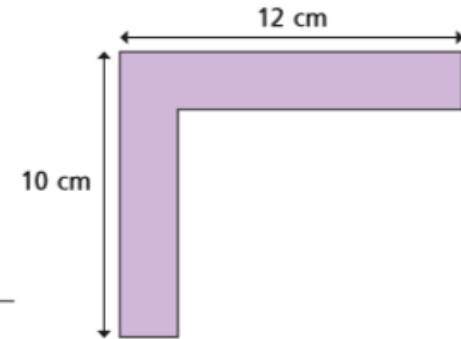
Work out the perimeter of each large shape.

5 cm
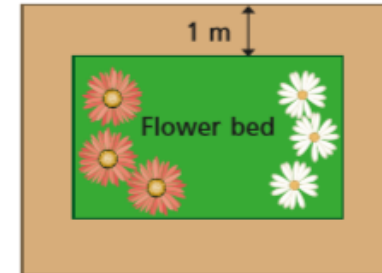3 cm
3 cm
5 cm

3 cm
5 cm
5 cm
3 cm

22 cm

26 cm

6 Dani thinks there isn't enough information to work out the perimeter of the shape.

12 cm

10 cm

Is Dani correct? __No__

Explain your answer.

7 A rectangular flower bed is 5 m long and 3 m wide.

The path around the flower bed is 1 m wide.
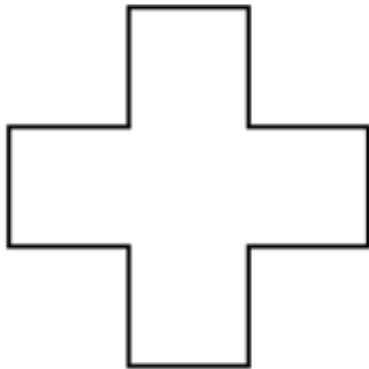
1 m

Flower bed

a) What is the perimeter of the flower bed?

16 cm

b) What is the perimeter of the outside of the path?

24 cm

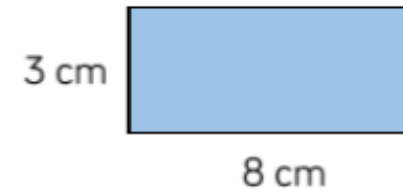1) Here is a rectilinear shape. All the sides are the same length and are a whole number of centimetres.

Which of these lengths could be the perimeter of the shape?

48 cm, 36 cm, 80 cm, 120 cm, 66 cm

Can you think of any other answers which could be correct?

2) Amir has some rectangles all the same size.

3 cm

8 cm

He makes this shape using his rectangles. What is the perimeter?

He makes another shape using the same rectangles. Calculate the perimeter of this shape.

Reasoning and problem solving - ANSWERS

Here is a rectilinear shape. All the sides are the same length and are a whole number of centimetres.

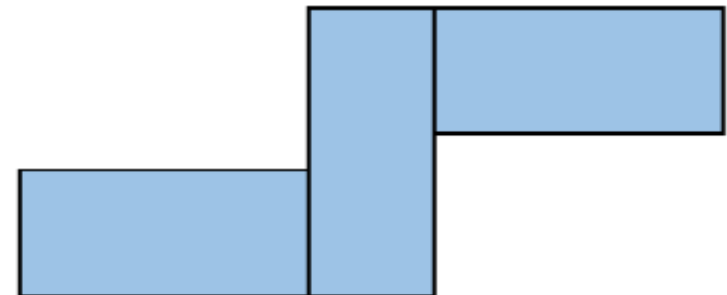Which of these lengths could be the perimeter of the shape?

48 cm, 36 cm, 80 cm, 120 cm, 66 cm

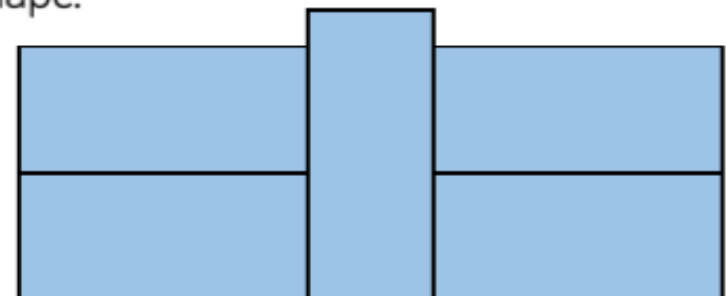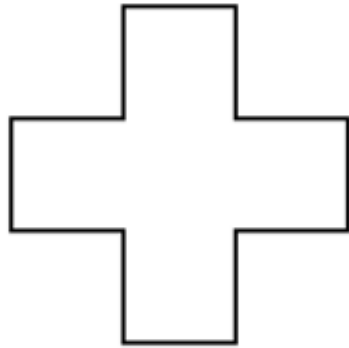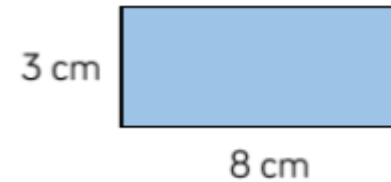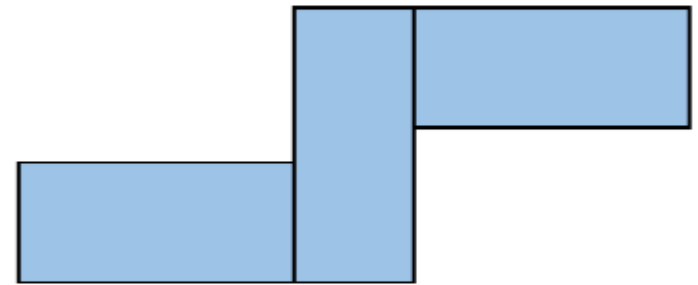Can you think of any other answers which could be correct?

48 cm, 36 cm or 120 cm as there are 12 sides and these numbers are all multiples of 12

Any other answers suggested are correct if they are a multiple of 12

Amir has some rectangles all the same size.

3 cm

8 cm

He makes this shape using his rectangles. What is the perimeter?

He makes another shape using the same rectangles. Calculate the perimeter of this shape.