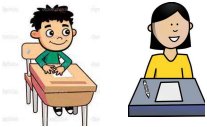




Maths Project Y6/Y7: Area and Perimeter

Name

Date



Information for Students: Complete all tasks in the order that they are set.



=harder tasks



=moderate tasks



Information for Parents/Guardians: Ways in which you can support your child.

- Helping students to access the internet.
- Checking that students are progressing through the tasks and understand the evidence that they are reading.
- Read the work that your child has produced and discuss with them how they have arrived at their conclusions.



Task 1: Perimeter

Part A involves finding the perimeter of rectangles and squares. Answer all the questions.

BLUE

Use the Internet to research how to find the perimeter of a rectangle?

RED

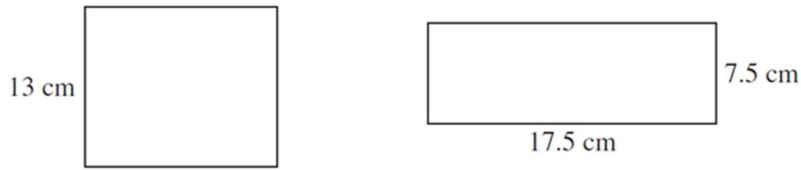
BLUE

1 What is the perimeter of a square with each side 7 cm?

BLUE

- 2 a Which shape below has the larger perimeter – the square with side 13 cm or the rectangle 17.5 cm by 7.5 cm?

RED



- b Write down the difference between the perimeters of the square and rectangle above.

BLUE

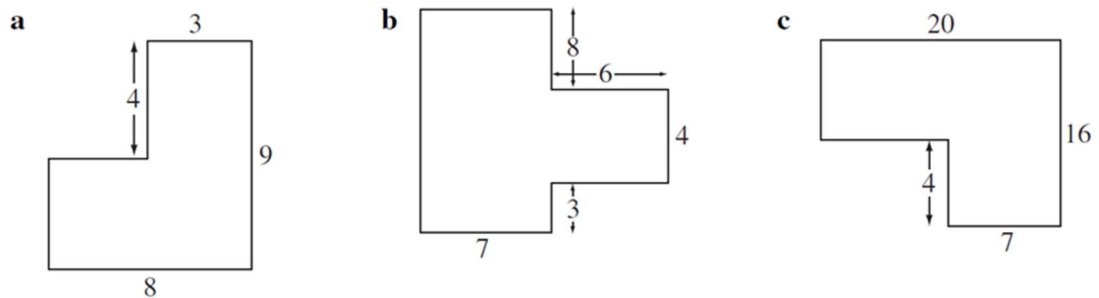
- 3 The perimeter of a rectangular swimming pool is 74 m. What is the length of the pool if the width is 12 m?

Part B involves finding the perimeter of compound shapes

BLUE

- 4 Find the perimeter of each shape. The lengths are in cm.

RED

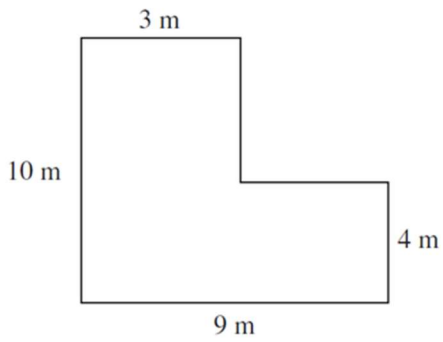


BLUE

- 5 A rectangular picture has a perimeter of 296 cm. If its length is three times its width, what is the length of the picture?



6



This is a plan of Neil's room. He wants to put coving around the perimeter of his room. The coving comes in 4 m pieces. How many pieces of coving must Neil buy?



Task 2: Area

Part A involves finding the area of rectangles and squares. Answer all the questions.



Use the Internet to research how to find the area of:

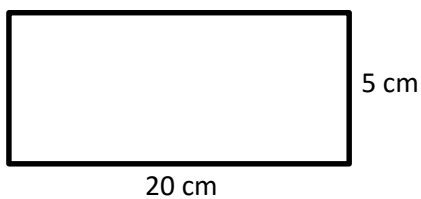
a) A Rectangle?



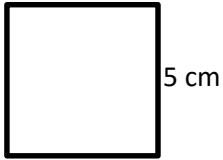
b) A Triangle?



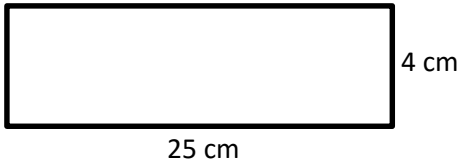
1 Find the area of the following shapes. Show all your working.



a)



b)



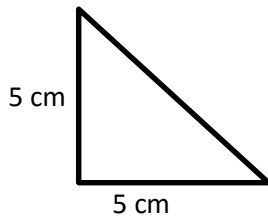
c)



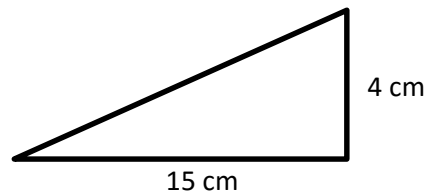
Part B involves finding the area of Triangles



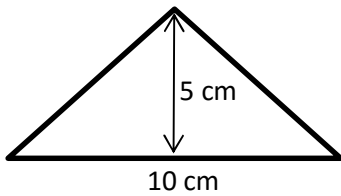
Find the area of the following shapes. Show all your working.



a)



b)



c)



Task 3: Compound Area

BLUE

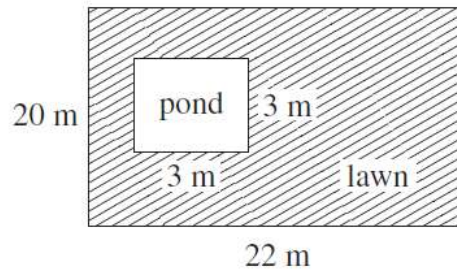
Use the Internet to research what Compound shapes are?

RED

Part A involves finding the area of rectangular compound shapes

BLUE

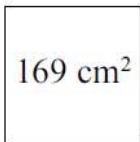
- 1 What is the area of this lawn?
(The lawn is shaded.)



RED

BLUE

- 2 What is the perimeter of this square?

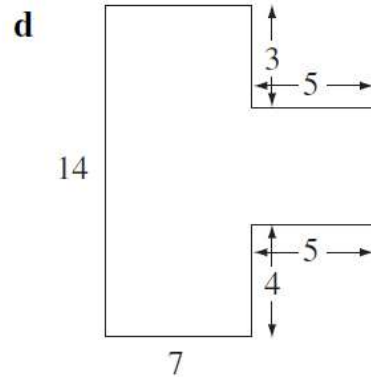
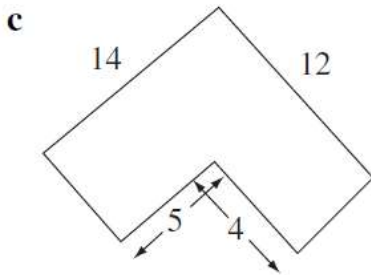
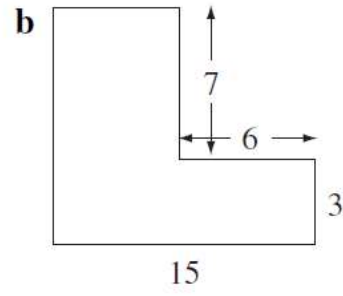
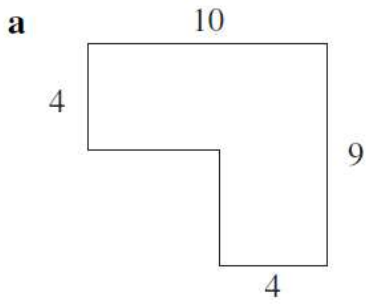


BLUE

- 3 A rectangle has an area of 75 m^2 . If the length is 10 m , what is its width?

BLUE

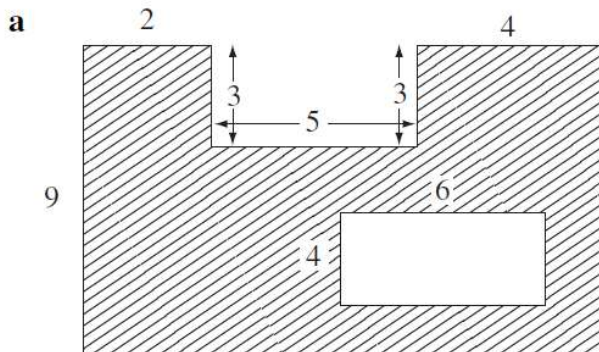
4 Find the area of each shape. The lengths are in cm.



RED

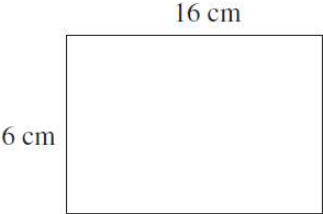
5 Find each shaded area (the lengths are in cm).

BLUE

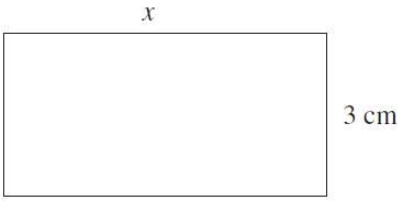




6

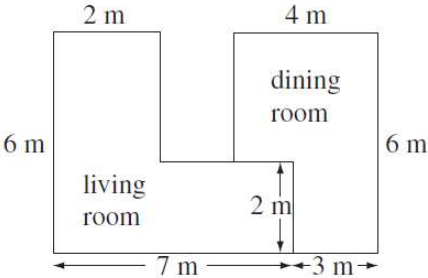


These two rectangles have the same area. Find the value of x .



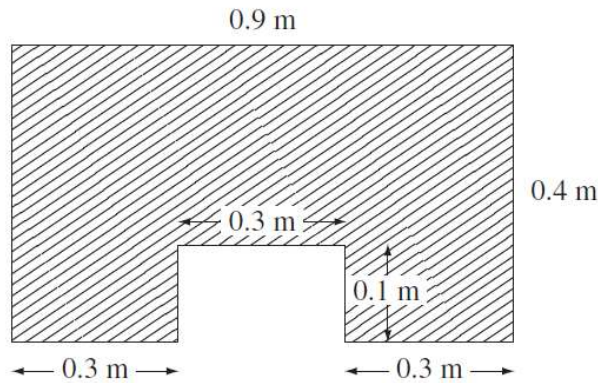
7

Shannon wants to carpet her living room and dining room. What is the total area of carpet she will need?





- 8 Amy is putting tiles on part of her kitchen wall shown below. Each tile is 15 cm by 10 cm. How many tiles will she use if she does not break any?



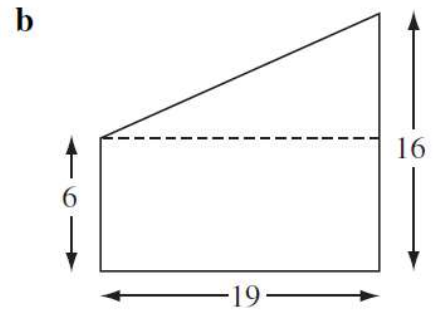
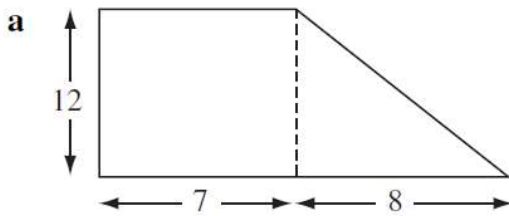
Part B involves finding the area of compound shapes



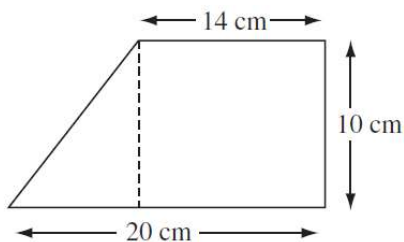
- 1 Find the area of a triangle with a base of 16 m and a height of 9 m.



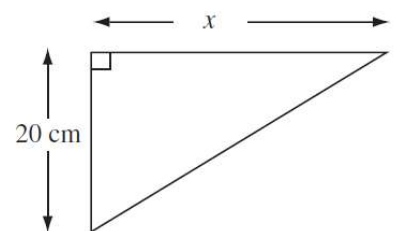
- 2 Find the total area of each shape. Lengths are in cm.



3



These two shapes have the same area. Find the value of x .

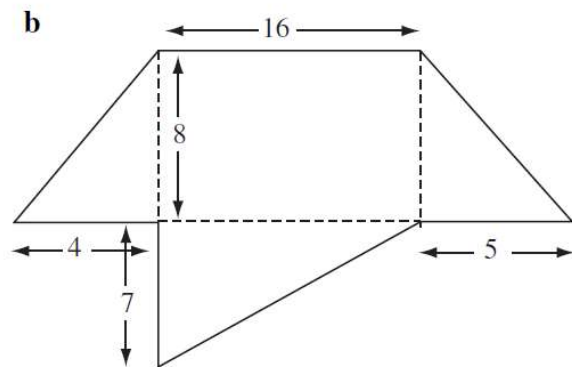
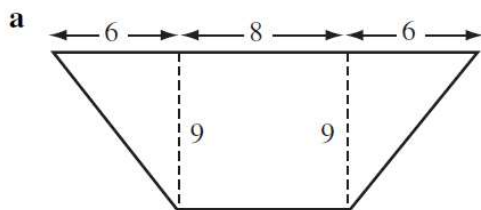


BLUE

- 4 Find the height of a triangle with a base of 30 m and an area of 45 m^2 .

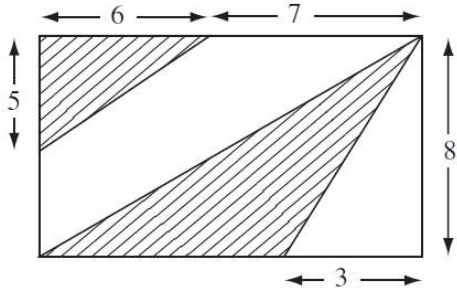
RED

- 5 Find the total area of each shape. Lengths are in cm.



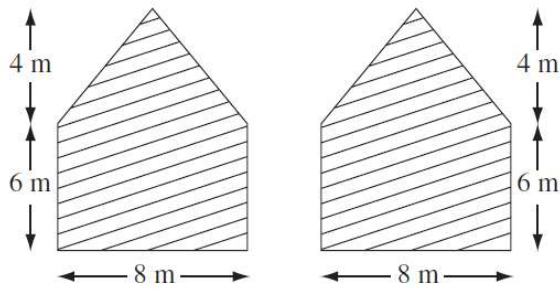
RED

6 Find the total shaded area. Lengths are in cm.



RED

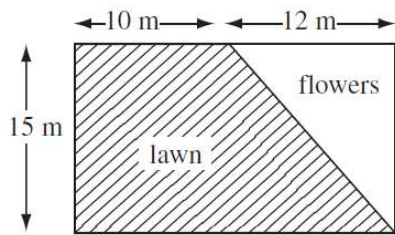
7



Denise is painting both ends of her house. Each pot of paint will cover 15 m^2 . How many pots of paint will Denise need?

RED

8



Calculate the area of the lawn.



Task 4: Area and Perimeter Investigation

BLUE

Farmers Jones' Fence

RED

Farmer Jones has to create a new grazing pen for his sheep. He has 24 metres of fencing and all the necessary posts. He is building a rectangular pen.

Due to there being 24 meters of fencing, the perimeter of the fence will have to be 24 meters. Investigate the various different sizes of rectangles that can be made with the 24 meters of fencing.

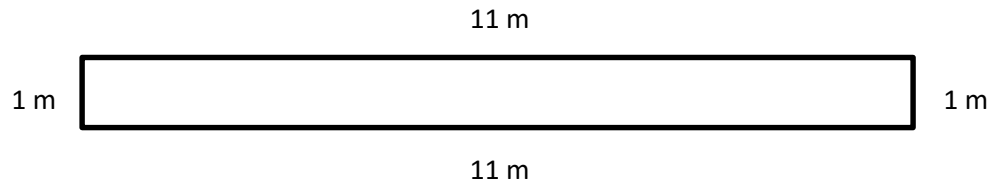
How should he lay out this pen in order to give the sheep the maximum area to graze?

What is the maximum area in square metres that the sheep can have and what will be the dimensions of the pen?

The first rectangle is done for you. Complete the table.

Length	Width	Perimeter	Area
1 m	11 m	24 m	11 m ²

Tip: Draw the different rectangles to make sure you find the right dimensions



Task 4: Area and Perimeter Investigation

Extra space if required



Task 5: Writing Task



Part A: Farmer Jones' Fence

Describe what you notice about the lengths and widths of the different rectangles in the table?

Describe what you notice about the areas of the different rectangles in the table?

Which dimensions should farmer Jones use for the grazing pen? Why should he use these dimensions?

Part B: Area and Perimeter in real life

Think of a job where area and perimeter would be needed on a regular basis. Give a scenario when they would need to be able to calculate area and perimeter. Remember to write in full sentences.
