9-1 Crossover Problem: Functional Area

ACCESS MATHS

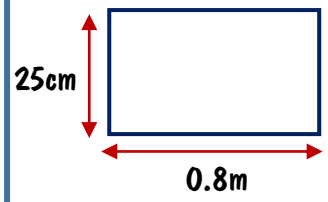
Step 1

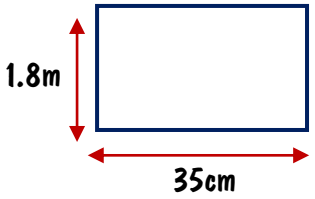
Convert all the units below:

Convert into metres:	Convert into centimetres:
1) 540cm	1) 0.94m
2) 345cm	2) 1.6m
3) 270cm	3) 1.8m
4) 80cm	4) 0.7m
5) 180cm	5) 0.26m

Work out the area of the following shapes in both metres and centimetres

Step 2

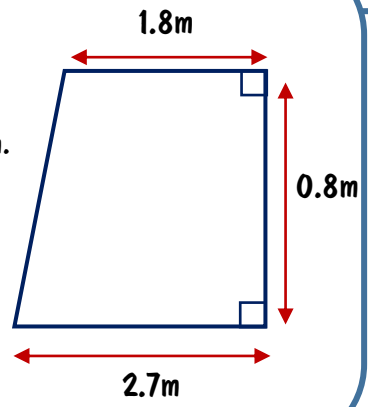




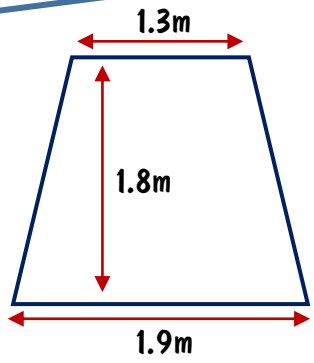
A rectangular tile with a width of 7.5cm and a length of 15cm

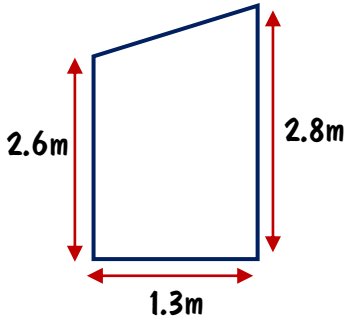
Step 4

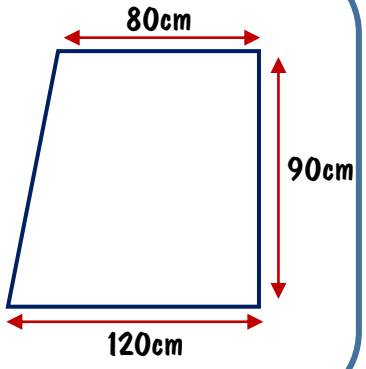
The diagram shows part of a wall that is going to be covered with tiles.
Each rectangular tile is 15 cm by 7.5 cm.
There are 9 tiles in each pack.
A decorator divides the area of the wall by the area of a tile to work out an estimate for the number of tiles they need to buy.
How many packs of tiles are needed?



Step 3

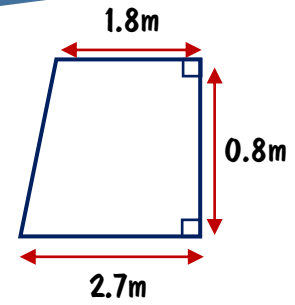






Calculate the area of each trapezium in both metres and centimetres

Extension



The decorator in step 4 is advised to buy 10% more tiles than estimated.
They assume they will need to buy 10% more packs of tiles.
Is this assumption correct?
You must show your working.