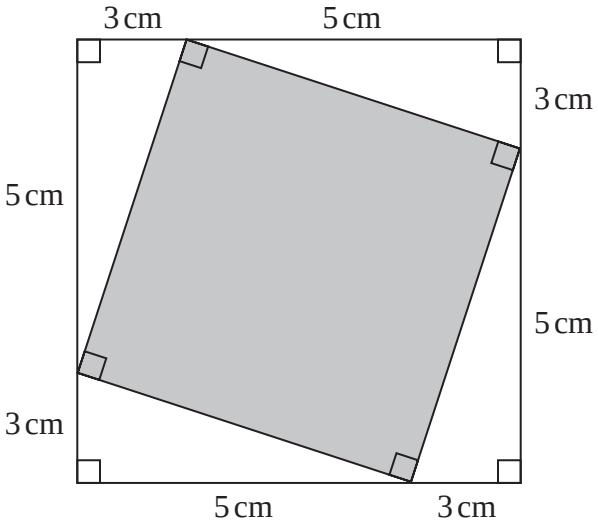
1 This diagram shows two squares.

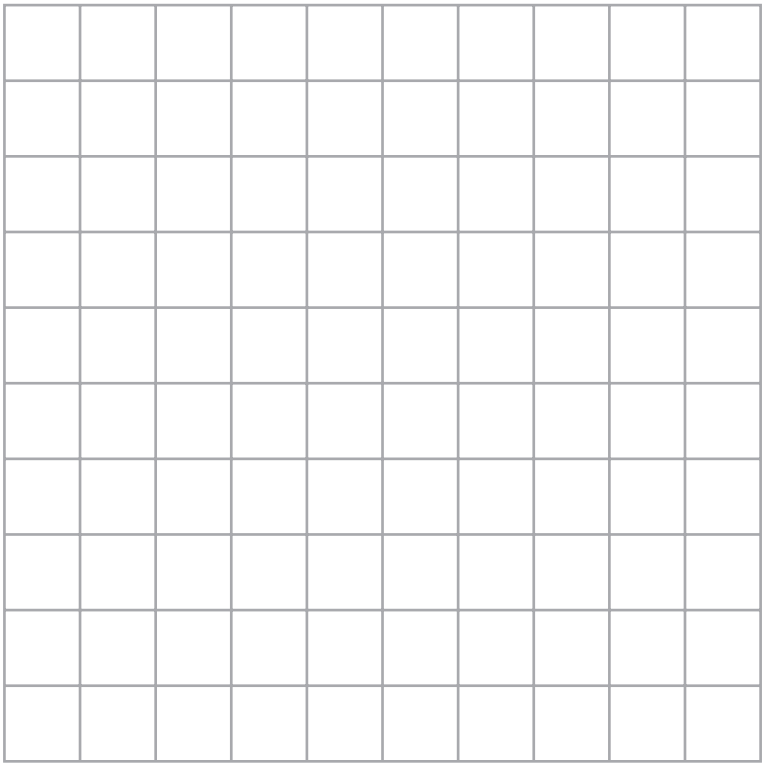


Work out the area of the square shown shaded in the diagram.

.....

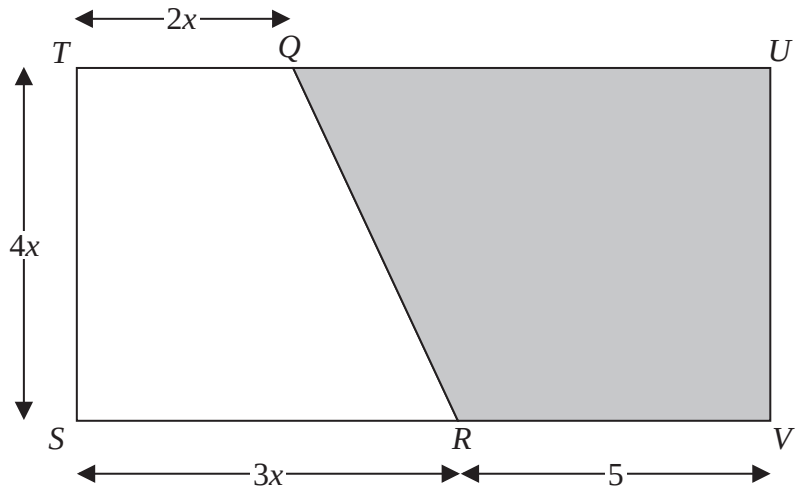
(Total for Question 1 is 4 marks)

2 On the centimetre grid, draw an isosceles triangle with an area of $12\,cm^2$



(Total for Question 2 is 2 marks)

3 The diagram shows rectangle *STUV*.
TQU and *SRV* are straight lines.
All measurements are in cm.

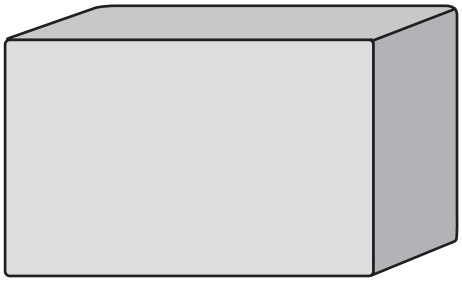


The area of trapezium *QUVR* is A cm^2

Show that $A = 2x^2 + 20x$

(Total for Question 3 is 3 marks)

4



$$\text{pressure} = \frac{\text{force}}{\text{area}}$$

A storage tank exerts a force of 10 000 newtons on the ground.

The base of the tank in contact with the ground is a 4 m by 2 m rectangle.

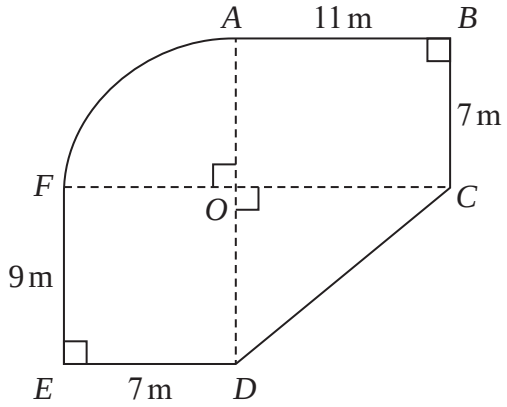
Work out the pressure on the ground due to the tank.

..... newtons / m^2

(Total for Question 4 is 2 marks)

5 The diagram shows a plan of Jason's garden.

ABCO and *DEFO* are rectangles.
CDO is a right-angled triangle.
AFO is a sector of a circle with centre *O* and angle *AOF* = 90°



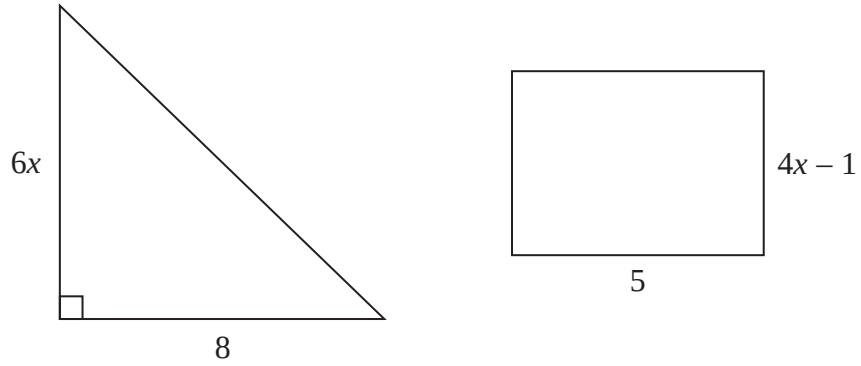
Jason is going to cover his garden with grass seed.
Each bag of grass seed covers 14 m^2 of garden.
Each bag of grass seed costs £10.95

Work out how much it will cost Jason to buy all the bags of grass seed he needs.

£.....

(Total for Question 5 is 5 marks)

6 Here is a triangle and a rectangle.



All measurements are in centimetres.

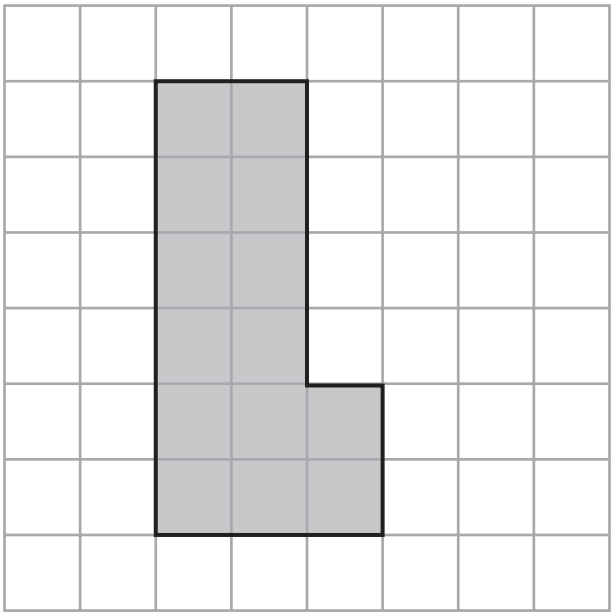
The area of the triangle is $10\,cm^2$ greater than the area of the rectangle.

Work out the value of x.

$x =$ .....

(Total for Question 6 is 4 marks)

7 The diagram shows a shape on a centimetre grid.

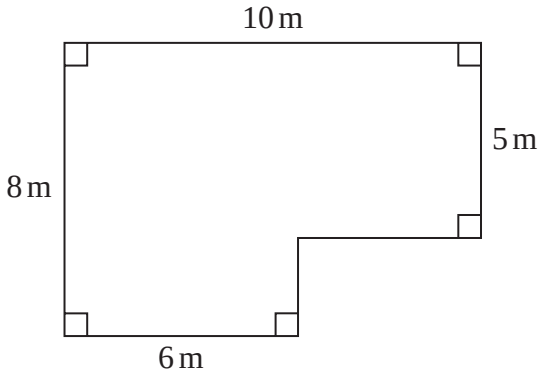


(a) Find the area of the shape.

..... cm^2

(Total for Question 7 is 1 mark)

8 The diagram shows a plan of a floor.



Petra is going to cover the floor with paint.

Petra has 3 tins of paint.
There are 2.5 litres of paint in each tin.

Petra thinks 1 litre of paint will cover $10\,m^2$ of floor.

(a) Assuming Petra is correct, does she have enough paint to cover the floor?
You must show all your working.

(4)

Actually, 1 litre of paint will cover $11\,m^2$ of floor.

(b) Does this affect your answer to part (a)?
You must give a reason for your answer.

.....

.....

.....

(1)

(Total for Question 8 is 5 marks)