QT Area of Compound Shapes

1. Work out the area of the shape.

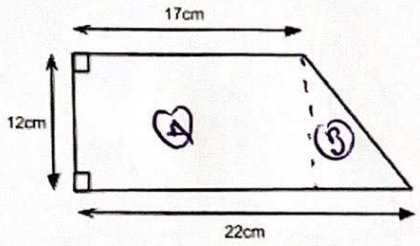

Diagram NOT drawn accurately.

(A) = 17 × 12 = 34, 170, 204

(B) $\frac{5 \times 4}{2} = \frac{5 \times 12}{2} = \frac{60}{2} = 30$

TOTAL = A + B
= 204 + 30
= 234 cm²

2. The diagram shows the plan of a field. A farmer would like to plant some wheat. He calculates that the cost of planting the seed is £2 per square metre. How much will it cost for the farmer to plant the whole field with wheat seed?

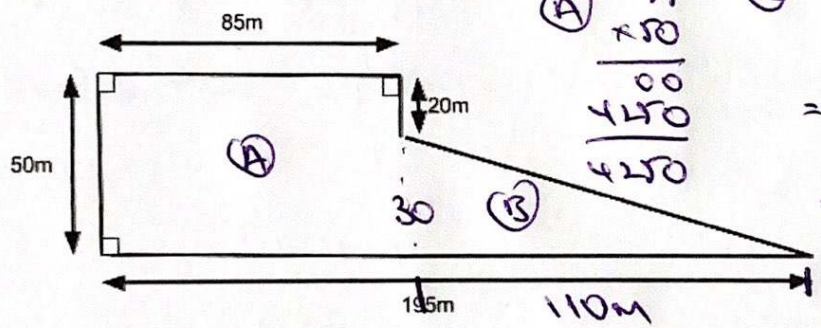

Diagram NOT drawn accurately.

(A) 85 × 50 = 00, 4250, 4250

(B) $\frac{5 \times 4}{2} = \frac{110 \times 30}{2} = \frac{3300}{2} = 1650$

TOTAL = A + B
= 4250 + 1650
= 5900 m²

Wheat seed = 5900 × 2 = 11800

£11800

3. The diagram shows a plastic piece for a toy car. Work out the area of the shaded region.

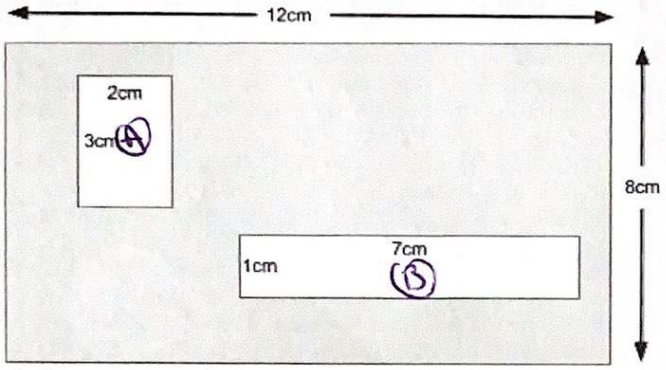

Diagram NOT drawn accurately.

Area = 12×8 = 96cm

A = 2×3 = 6cm

B = 7×1 = 7cm

Shaded Area = $96 - 6 - 7$ = $83 cm^2$

4. The diagram shows a circle inside a triangle. The circle has a radius of 2cm. The triangle has a base of 12cm and a height of 12cm. Work out the area of the shaded region shown in the diagram. Give your answer correct to 1 decimal place.

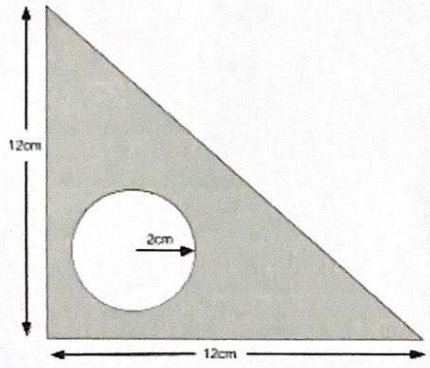

Diagram NOT drawn accurately.

Area of triangle $= \frac{b \times h}{2}$

$= \frac{12 \times 12}{2}$

$= 72 cm^2$

Area of circle $= \pi r^2$

$= \pi (2)^2$

$= 4\pi$

Area of shaded region

$=$ triangle $-$ circle

$= 72 - 4\pi$

$= 59.4336$

$= 59.4 cm^2$