14 Joe was changing the subject of the formula

$$A = \frac{3b}{\sqrt{c}} \quad \text{to } c$$

Joe has written $\quad A = \frac{3b}{\sqrt{c}}$

Line 1 $\qquad A^2 = \frac{3b^2}{c}$

Line 2 $\qquad A^2c = 3b^2$

Line 3 $\qquad c = \frac{3b^2}{A^2}$

(a) Identify the line where Joe made a mistake.

Answer Line _____ [1]

(b) Write down the correct answer:
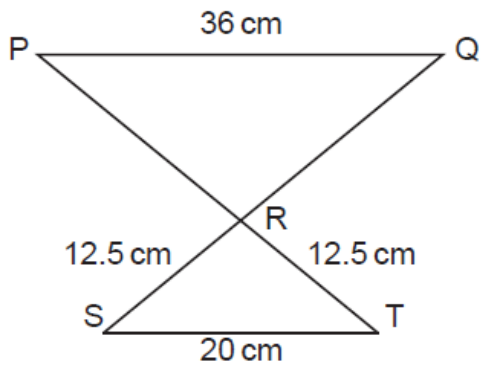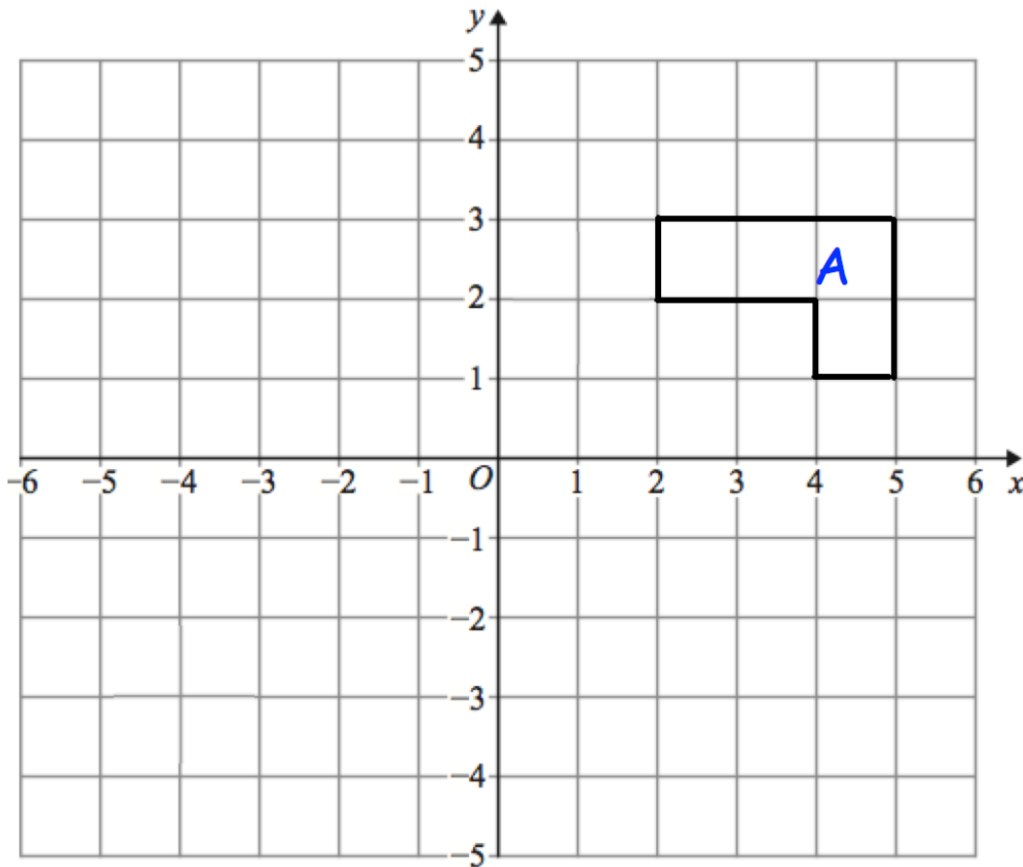
Answer $c = $ _____ [1]

Evaluate

$$4^{-2}$$

....

(1)

12

36 cm

P ———————————— Q

12.5 cm   R   12.5 cm

S ———————— T
20 cm

Diagram not
drawn accurately

PQR and STR are similar triangles.

(a) Calculate the length of QR.

Answer _____ cm **[2]**

Rotate shape A 90° anti-clockwise about centre (5, −1)

(3)