

M7 = 15 days to go!

14 Joe was changing the subject of the formula

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

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

Line 1

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

Line 2

$$A^2c = 3b^2$$

Line 3

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

$$A = \frac{3b}{\sqrt{c}}$$

$$A^2 = \frac{9b^2}{c}$$

$$A^2c = 9b^2$$

$$c = \frac{9b^2}{A^2}$$

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

Answer Line Line 1 [1]

(b) Write down the correct answer:

Answer $c = \frac{9b^2}{A^2}$ [1]

Evaluate *no calculator required!*

$$4^{-2}$$

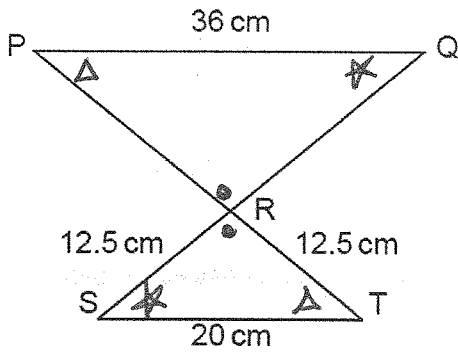
$$4^{-2} = \frac{1}{4^2} = \frac{1}{16}$$

$$\frac{1}{16} \quad (1)$$

Negative Index

$$7^{-1} = \frac{1}{7}$$

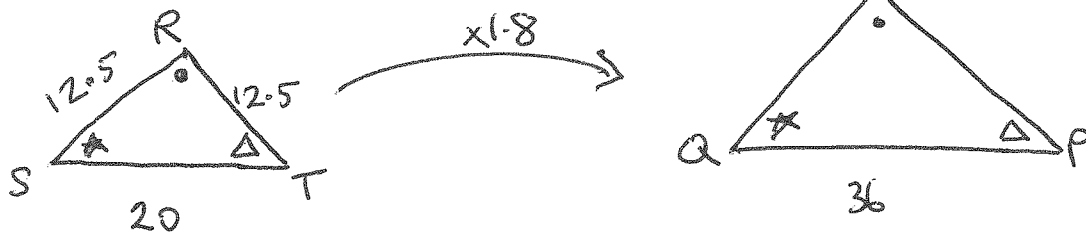
$$3^{-4} = \frac{1}{3^4} = \frac{1}{3 \times 3 \times 3 \times 3} = \frac{1}{81}$$



These triangles are similar. Look at the alternate angles in the parallel lines
 Diagram not drawn accurately

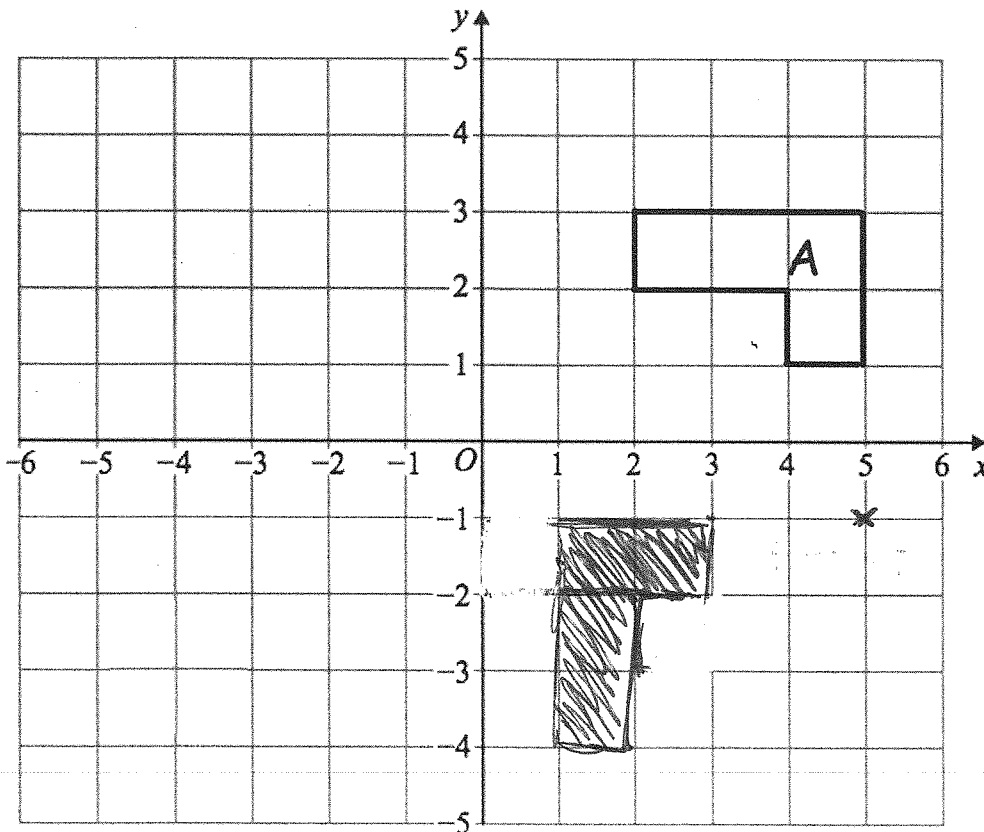
PQR and STR are similar triangles.

(a) Calculate the length of QR.



12.5×1.8

Answer 22.5 cm [2]



Rotate
 You need
 • angle
 • clockwise or anti-clock
 • centre of rotation

Use tracing paper

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