ANSWERS

Similar Shapes – Past Paper Questions

16. The diagram shows two similar shapes.

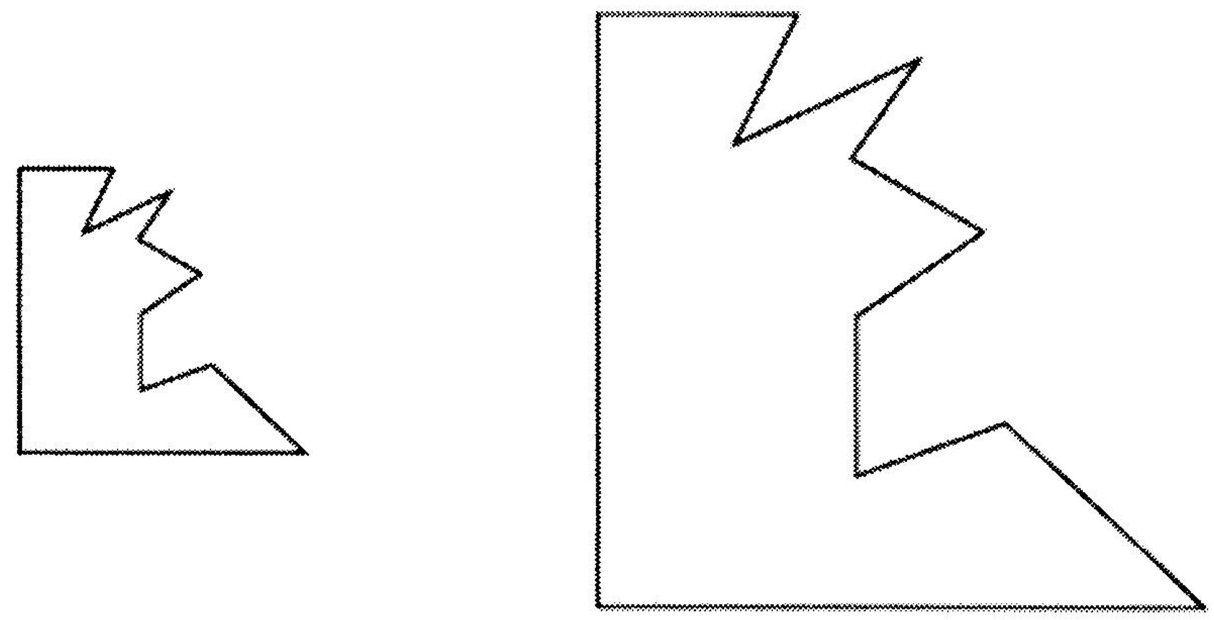


Diagram not drawn to scale.

Each length on the larger shape is three times the corresponding length on the smaller shape.
The area of the larger shape is 90 cm^2. Find the area of the smaller shape.

SF = 3

Area so $SF^2 = 9$. (1)

$\therefore 90 \div 9$ (1) $= 10$ cm^2 (1)

[3]

12. The diagram shows two similar triangles, *ABC* and *PQR*.

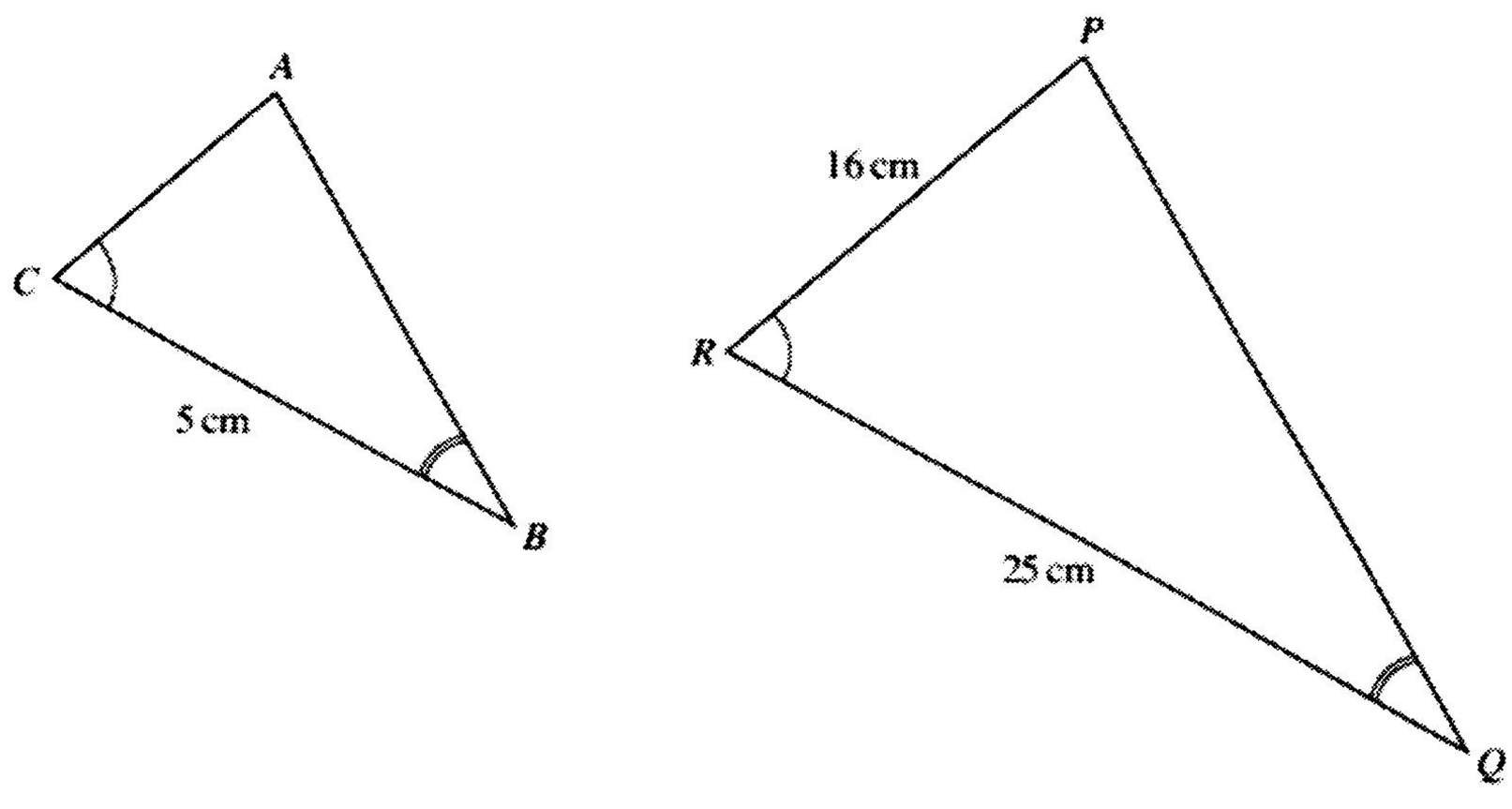


Diagram not drawn to scale.

Given that $CB = 5$cm, $RQ = 25$cm and $PR = 16$cm, find the length of AC.

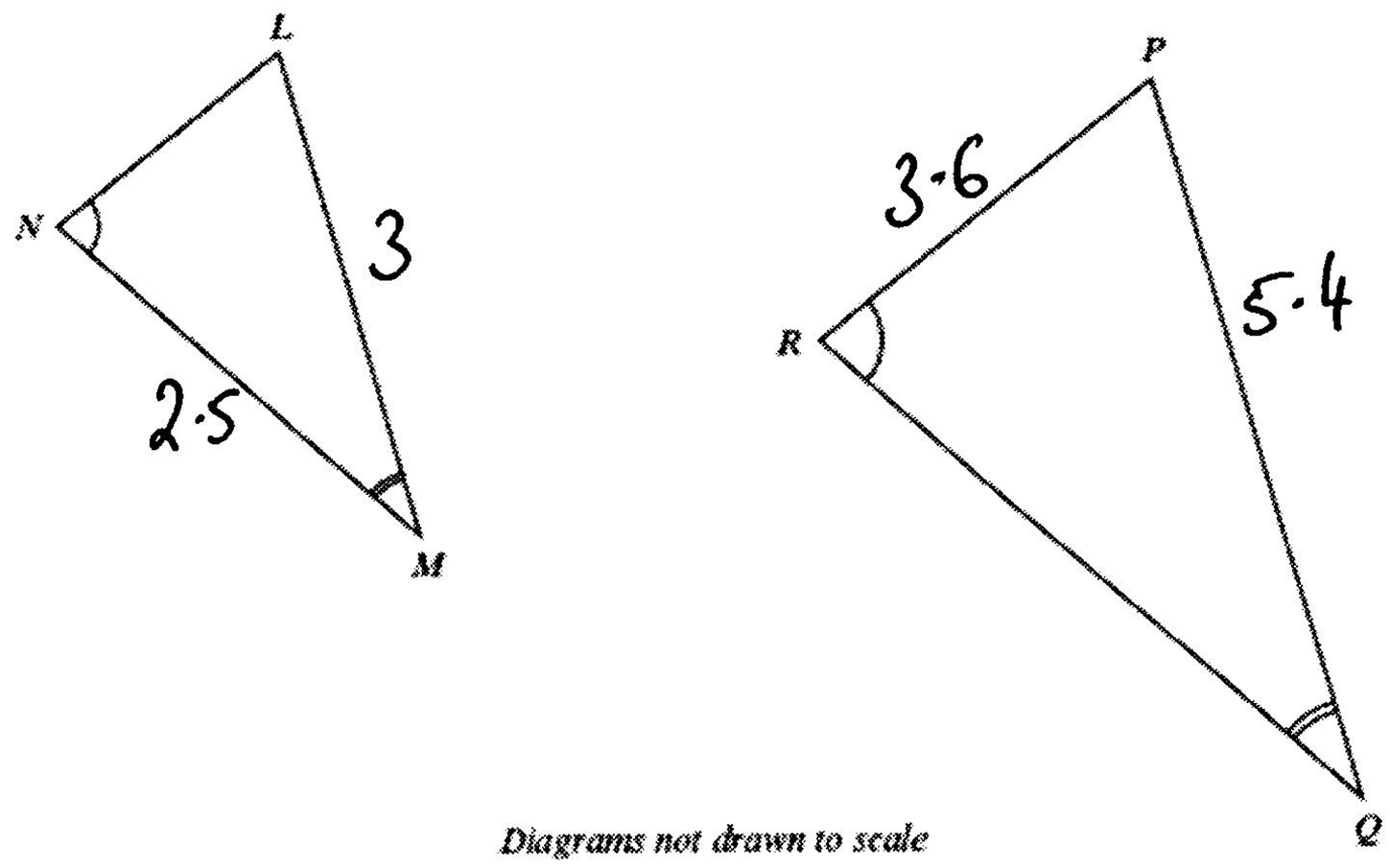
25 → 5 ÷5

16 → AC ÷5 (1)

= 3.2 cm (1)

[2]

9. Triangles LMN and PQR are similar.



Diagrams not drawn to scale

$LM = 3$cm, $MN = 2{\cdot}5$cm, $PR = 3{\cdot}6$cm and $PQ = 5{\cdot}4$cm.
Showing all your working, find the length of

(a) RQ.

$5{\cdot}4 \div 3 = SF \quad SF = 1{\cdot}8$ (1)

$\therefore 2{\cdot}5 \times 1{\cdot}8 = 4{\cdot}5$cm (1)

[2]

(b) LN.

$3{\cdot}6 \div 1{\cdot}8 = LN$ (1)

$\therefore LN = 2$cm (1)

[2]