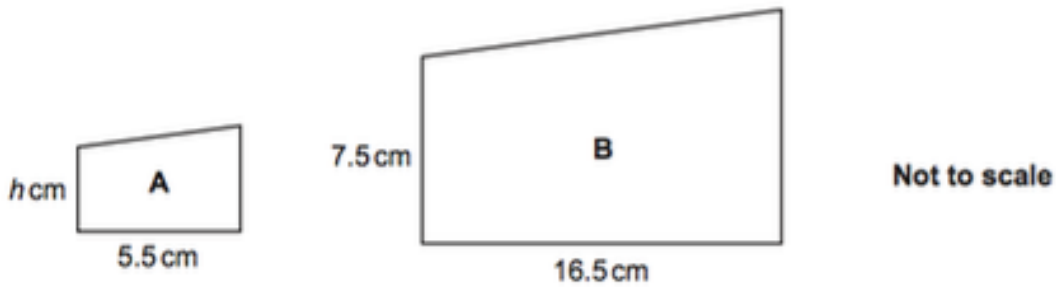


Topic 13 Similar shapes (Post-TT) [26]

1. **Non-calculator**

Shape **A** is similar to shape **B**.

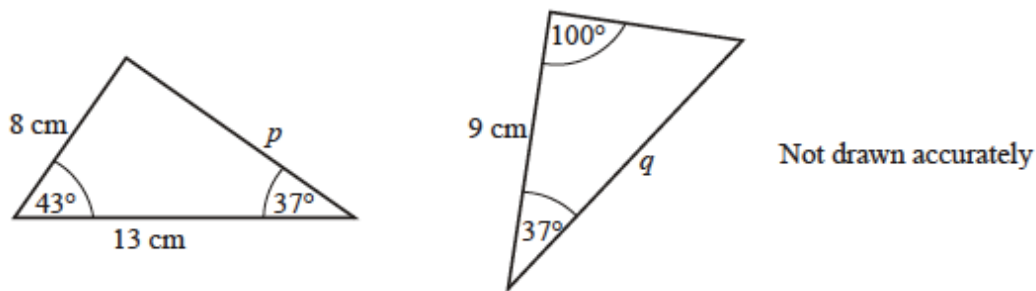


Work out the value of h .

(Total 3 marks)

2.

The two triangles shown below are congruent.



Write down the values of p and q

(Total 2 marks)

3.

Two spheres have radii in the ratio 5 : 3

Circle the ratio of their volumes.

[1 mark]

5 : 3

15 : 9

25 : 9

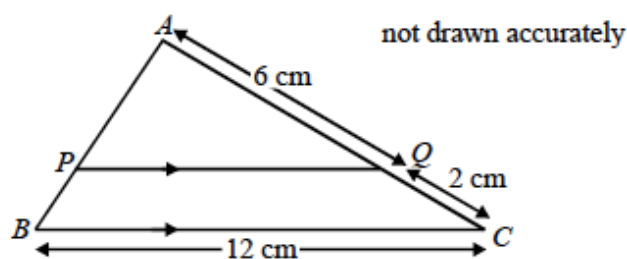
125 : 27

4.

Triangles ABC and APQ are similar.

PQ is parallel to BC .

$AQ = 6$ cm, $QC = 2$ cm and $BC = 12$ cm

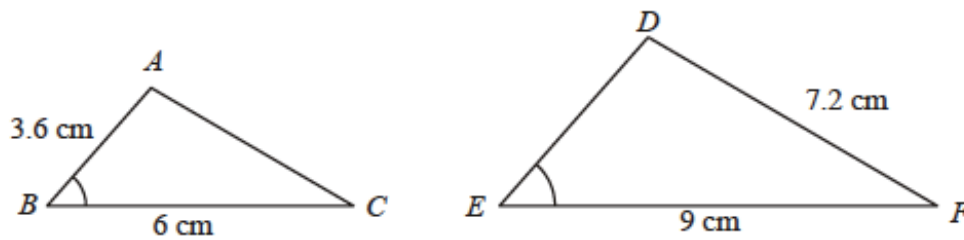


Calculate the length of PQ .

(Total 3 marks)

5.

Triangles ABC and DEF are similar.
Angle $B =$ angle E
 $AB = 3.6$ cm and $BC = 6$ cm
 $DF = 7.2$ cm and $EF = 9$ cm



Diagrams not to scale

(a) Calculate the length of DE .

(2)

(b) Calculate the length of AC .

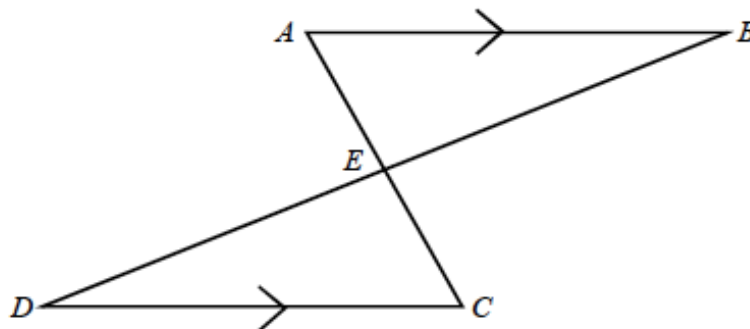
(2)

(Total 4 marks)

6.

In the diagram, the lines AC and BD intersect at E .

AB and DC are parallel and $AB = DC$.

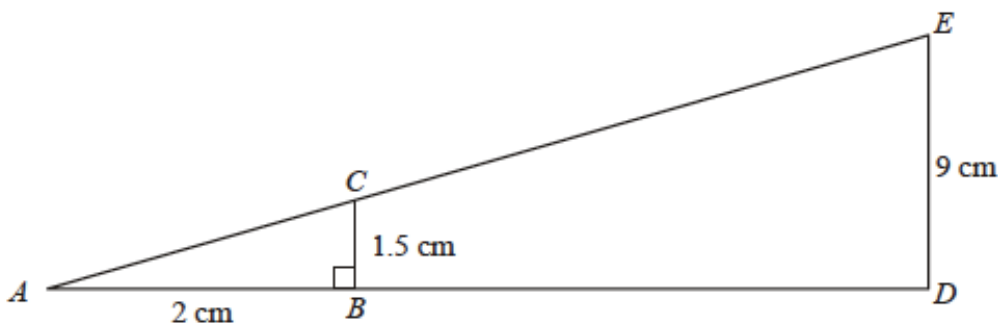


Prove that triangles ABE and CDE are congruent.

(Total 4 marks)

7.

ABC and ADE are similar triangles.
 $BC = 1.5$ cm, $DE = 9$ cm, $AB = 2$ cm

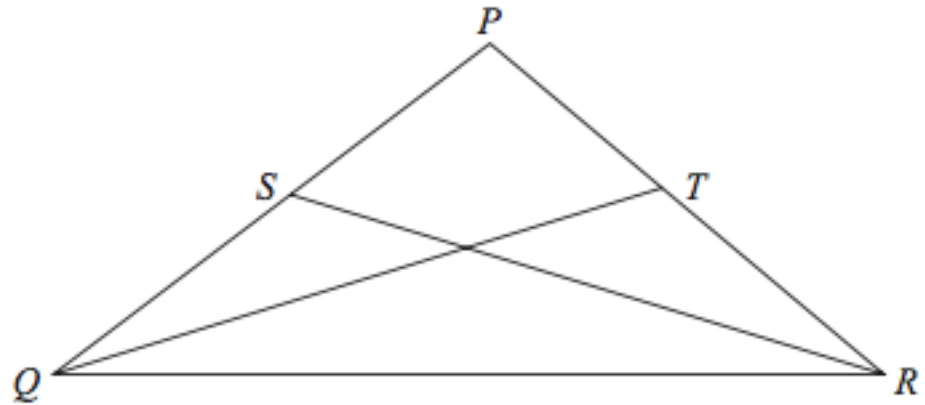


Not drawn accurately

Calculate the length of BD .

(Total 3 marks)

8. Non-calculator



$PQ = PR.$

S is the midpoint of $PQ.$

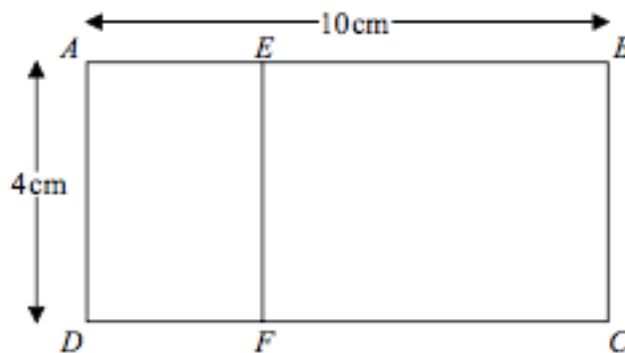
T is the midpoint of $PR.$

Prove triangle QTR is congruent to triangle $RSQ.$

(Total 3 marks)

9. Non-calculator

Rectangle $ABCD$ is mathematically similar to rectangle $DAEF.$



$AB = 10\text{ cm.}$

$AD = 4\text{ cm.}$

Work out the area of rectangle $DAEF.$

(Total 3 marks)