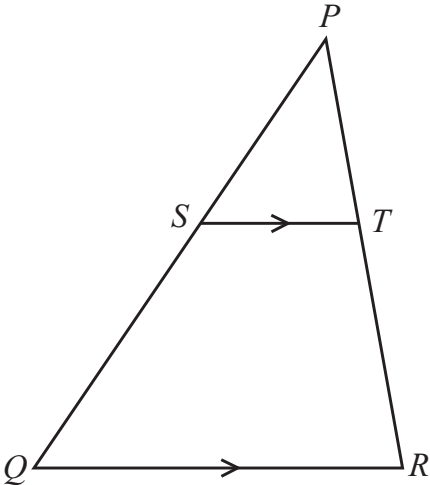


11



NOT TO
SCALE

In the diagram, S lies on PQ and T lies on PR .
 ST is parallel to QR .

- (a) Explain why triangle PQR is mathematically similar to triangle PST .
Give a geometrical reason for each statement you make.

.....
.....
.....
..... [3]

- (b) $ST = 3\text{ cm}$, $QR = 9\text{ cm}$ and $PS = 5\text{ cm}$.

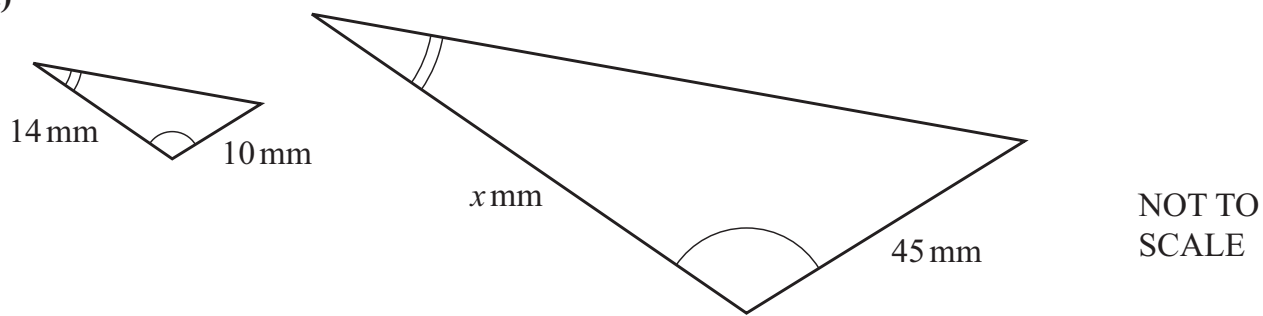
Work out PQ .

$PQ = \text{.....cm}$ [2]

- (c) The area of triangle PST is $2k\text{ cm}^2$.

Find, in terms of k , the area of quadrilateral $QRTS$.

22 (a)



The diagram shows two mathematically similar triangles.

Find the value of x .

$x =$ [2]

- (b) The surface areas of two mathematically similar containers are 124 cm^2 and 279 cm^2 .
The capacity of the smaller container is 56 ml.

Find the capacity of the larger container.

..... ml [3]