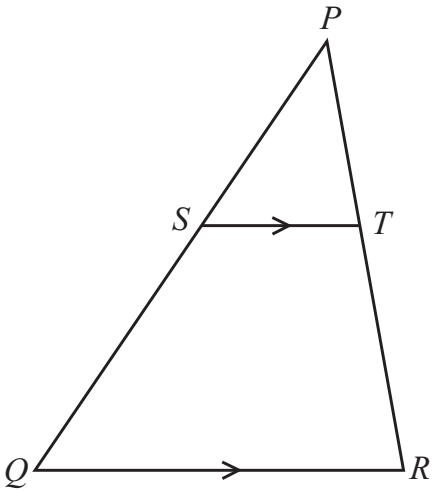
11



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) $ST = 3$ cm, $QR = 9$ cm and $PS = 5$ cm.

Work out PQ.

$PQ =$ .....cm [2]

(c) The area of triangle PST is $2k$ cm^2.

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

..... cm^2 [2]