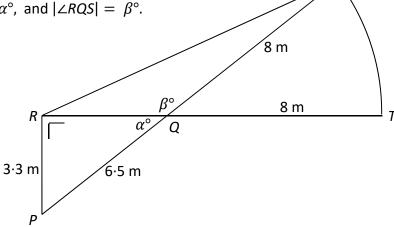**Question 8** (50 marks)

The diagram shows a section of a garden divided into three parts.
In the diagram: $|PR| = 3{\cdot}3$ m, $|PQ| = 6{\cdot}5$ m, $|QT| = |QS| = 8$ m,
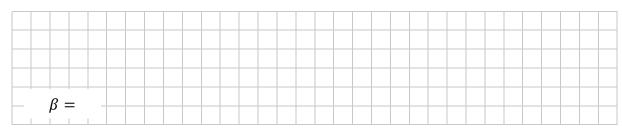$|\angle QRP| = 90°$, $|\angle PQR| = \alpha°$, and $|\angle RQS| = \beta°$.

(a) Use the theorem of Pythagoras to find $|RQ|$.

(b) Show that $\alpha = 31°$, correct to the nearest degree.

(c) Use the value of α given in part **(b)** to find the value of β.

$\beta =$