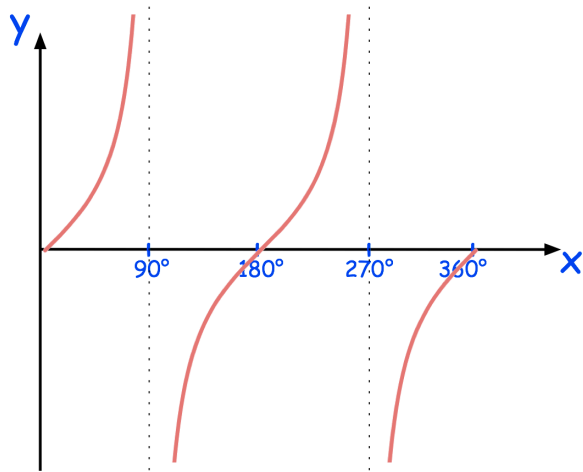


**19th August**

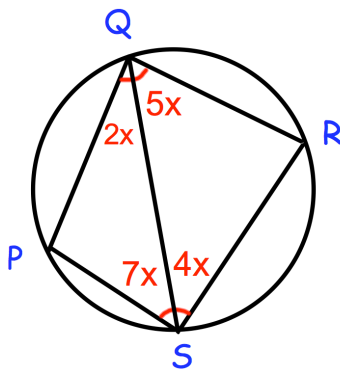
Corbettmaths

Here is a sketch of  $y = \tan x$  for  $0^\circ \leq x \leq 360^\circ$



Given that  $\tan 54^\circ = 1.376$

Solve  $\tan x = -1.376$  for  $0^\circ \leq x \leq 360^\circ$



Prove QS is a diameter.

The transformation matrix  $\begin{pmatrix} -1 & 0 \\ 0 & 1 \end{pmatrix}$  maps point P to point Q.

The transformation matrix  $\begin{pmatrix} 0 & -1 \\ -1 & 0 \end{pmatrix}$  maps point Q to point R.

Point P is  $(7, -2)$ .

Work out the coordinates of point R.