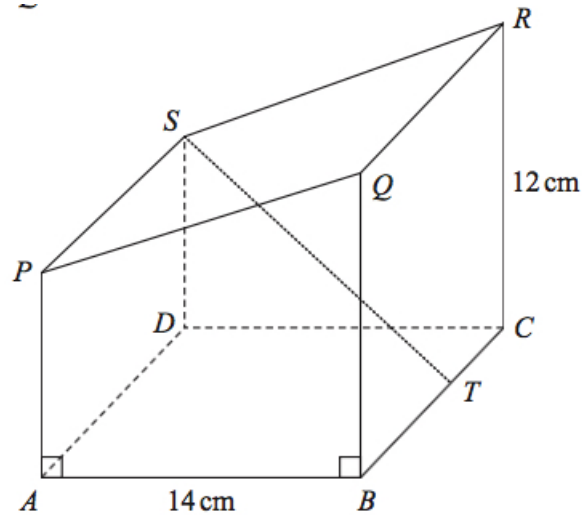# Dr Oliver Mathematics
Worked Examples
Angle 1

From: Edexcel GCSE Mathematics June 2022 Paper 3H (Calculator)

1. Here is a prism $ABCDSPQR$. (5)

The base $ABCD$ of the prism is a square of side 14 cm.
T is the point on BC such that $BT : TC = 4 : 3$.

The cross-section of the prism is in the shape of a trapezium of area 147 cm^2.
$CR = 12$ cm.

Find the size of the angle between the line ST and the base $ABCD$.
Give your answer correct to 1 decimal place.