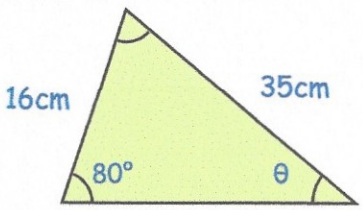
Name: _____ 5-a-day Higher

14th June

Corbettmaths

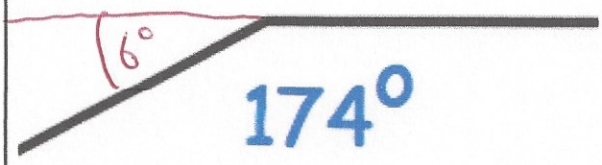


Find θ

$\frac{\sin\theta}{16} = \frac{\sin 80}{35}$ $\sin\theta = \frac{16\times\sin 80}{35}$

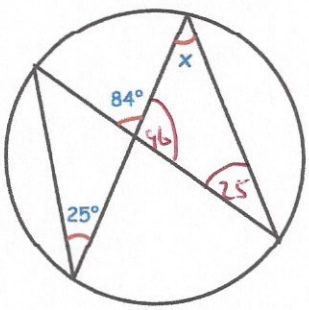
$\sin^{-1}(0.45\ldots)$

$\theta = 26.8$



Shown is part of a regular polygon.
How many sides does it have?

$\frac{360}{6} = 60$



Find x

$180 - 84 = 96$

$96 + 25 = 121$

$180 - 121 = 59$

$x = 59$

h is directly proportional to the square of w.

When h = 24, w = 2.

Find the value of h when w = 4.

$24 = k \times 2^2$

$24 = 4k$

$k = 6$

$h = 6w^2$

$h = 6 \times 16$

$= 96$

Sophie estimated that the distance between Bristol and Newcastle is about 290 miles and that her average driving speed would be 60 mph.
She estimated the distance to the nearest 10 miles and the speed to the nearest 10 mph.

Calculate the lower bound of the time the journey should take.
Give your answer in hours and minutes.
Give your answer to the nearest minute.

$\frac{285}{65} = 4.384\ldots$

4hrs 23 mins