17th July **Higher 5-a-day**

Corbettmaths

What is the size of each exterior angle of a regular 40 sided polygon?

$360 \div 40 = 9°$

What is the size of each interior angle of a regular 40 sided polygon?

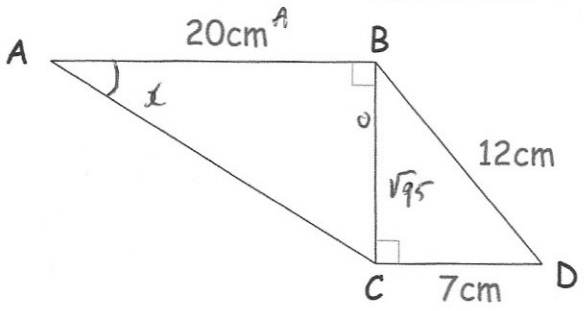
$171°$

Write as a single power of 2

$\frac{2^9 \times 8}{4} \times 16$ $\frac{2^9 \times 2^3}{2^2} \times 2^4$

$\frac{2^{12}}{2^2} \times 2^4$

$2^{10} \times 2^4 = 2^{14}$



Work out the size of angle CAB

$BC^2 = 12^2 - 7^2$

$BC^2 = 95$

$BC = \sqrt{95}$

$\tan x = \frac{\sqrt{95}}{20}$

$x = 25.98°$

Expand and simplify

$\sqrt{5}(3\sqrt{2} - \sqrt{5})$

$3\sqrt{10} - 5$