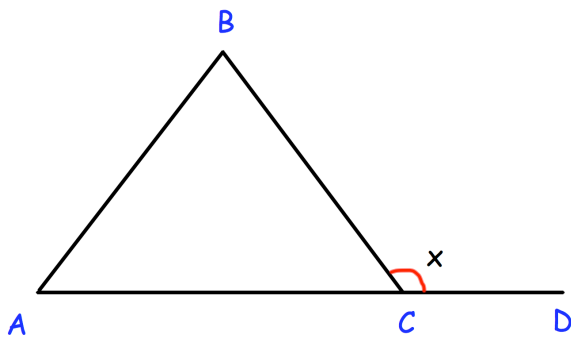


15th January



Corbettmaths

Angle BCD = x° Prove angle ABC = $(2x - 180)^\circ$

ABC is an isosceles triangle.

AB = BC

ACD is a straight line.

Use the factor theorem to show that
 $(x - 2)$ and $(x + 5)$
 are factors of

$$x^3 + 2x^2 - 13x + 10$$

Use the factor theorem to show that
 $(x - 2)$ and $(x + 5)$
 are also factors of

$$x^3 + 11x^2 + 14x - 80$$

Hence, simplify fully

$$\frac{x^3 + 2x^2 - 13x + 10}{x^3 + 11x^2 + 14x - 80}$$