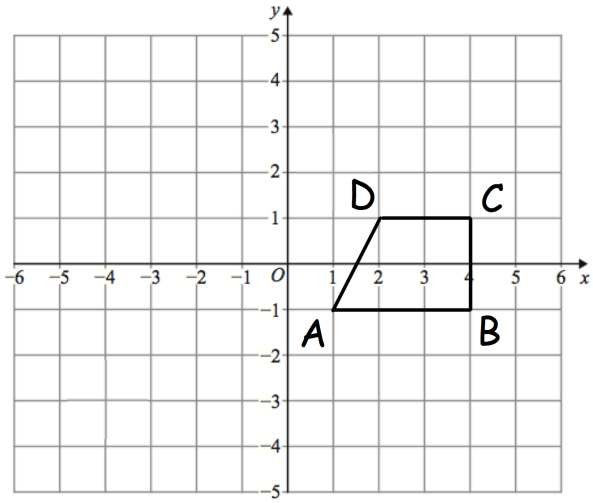
26th May **Higher Plus 5-a-day**

Corbettmaths

Write $x^2 + 4x + 9$ in the form $(x + a)^2 + b$

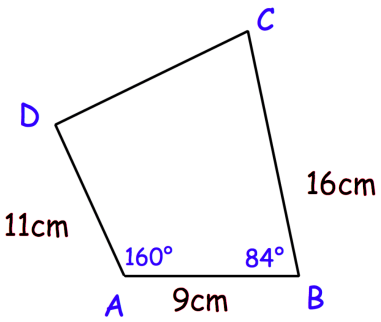
Find the coordinates of the turning point of $y = x^2 + 4x + 9$

Shown below is trapezium ABCD



Describe a single transformation of the trapezium so that only point D is invariant

Describe a single transformation of the trapezium so that all the points on AD are invariant and there are no other invariant points.



Calculate the length CD.

APC is a straight line.
CP = BP
Angle ABP is twice angle CBP
Angle BCP = x
Prove Angle BAC = (180 – 4x)°