12th July
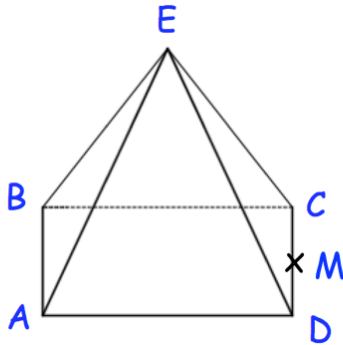
A is the point (0, 0)
B is the point (−1, 7)

AB is the radius of the circle.

Work out the equations of the two possible circles.

Shown below is a rectangular-based pyramid.
The apex E is directly over the base of the pyramid.

AD = 8cm   CD = 6cm
EM = 11cm

M is the midpoint of the line CD.

Work out the size of angle AME

Find the set of values of x for which
$y = x^3 - 9x^2 - 81x$ is an increasing function.