

28th May

Corbettmaths

$$3x^2 + bx + 9 = a(x + 3)^2 + c$$

Find a, b and c.

Points A and B have coordinates
(-2, 4) and (1, -5)

Find the equation of the line AB

The line CD has equation $4y - x = 5$

Find the coordinates of the point of
intersection of the two lines

Simplify

$$\frac{4}{\sqrt{2} + 1} - \frac{1}{1 - \sqrt{2}}$$

Find the range of values of k for
which the equation

$$x^2 + (2 - k)x + 1 = 0$$

has no real roots. Leave your
answer in surd form