

6th January

Corbettmaths

Use factor theorem to show that
 $(x - 4)$ is a factor of $x^3 + x^2 - 20x$

Solve the simultaneous equations

$$2x + 4y - z = 15$$

$$3x + 8y + z = 44$$

$$x + 2y + 2z = 15$$

A curve has equation $y = x^2 + 2x$

Find the gradient of the normal to the
curve at the point $(1, 3)$

A circle has equation
 $(x + 7)^2 + (y - 6)^2 = 49$

Is the point $(-4, 12)$ inside or outside
the circle?