

**27th April**

Corbettmaths

Simplify

$$\sqrt{242} - \sqrt{98} + 4\sqrt{8}$$

A circle has equation  
 $(x + 8)^2 + (y - 4)^2 = 25$

Is the point  $(-5, 3)$  inside or outside the circle?

Solve the simultaneous equations

$$x + y + 2z = 40$$

$$2x - y + 3z = 5$$

$$5x + 4y - 2z = 0$$

$$f(x) = 6x^2 - 30x + 2 - 2x^3$$

Show that  $f(x)$  is a decreasing function for all values of  $x$ .