

15th September



Corbettmaths

Make m the subject of

$$\frac{3m+2}{c} = \frac{m+1}{a}$$

$$3am+2a = cm+c$$

$$3am - cm = c-2a$$

$$m(3a-c) = c-2a$$

$$m = \frac{c-2a}{3a-c}$$

Express $(8 + \sqrt{5})^2$ in the form $a + b\sqrt{5}$

$$(8 + \sqrt{5})(8 + \sqrt{5})$$

$$64 + 8\sqrt{5} + 8\sqrt{5} + 5$$

$$69 + 16\sqrt{5}$$

Find the value of x

$$2^x \times 4^{x+3} = 16$$

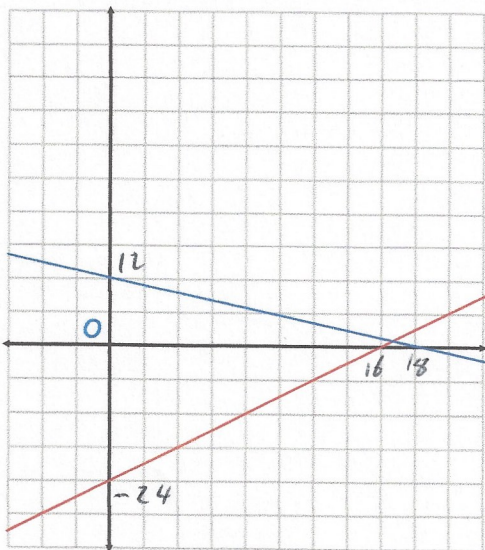
$$2^x \times 2^{2(x+3)} = 2^4$$

$$2x + 6 + x = 4$$

$$3x + 6 = 4$$

$$3x = -2$$

$$x = -\frac{2}{3}$$



Find the equation of Line 2

$$y = -\frac{2}{3}x + 12$$

Are the lines perpendicular?

Yes

$$\frac{3}{2} \times -\frac{2}{3} = -1$$

Line 1 has equation $y = \frac{3}{2}x - 24$

$$\frac{3}{2}x - 24 = 0$$

$$\frac{3}{2}x = 24$$

$$3x = 48$$

$$x = 16$$