



Simplify fully

$$\frac{4x^2 - 25}{6x^2 - 11x - 10} = \frac{(2x+5)(2x-5)}{(3x+2)(2x-5)}$$

$$\frac{2x+5}{3x+2}$$

Find the value of x

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

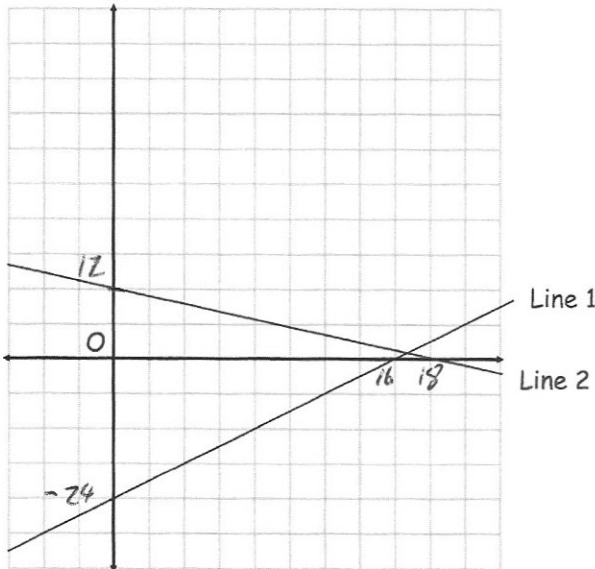
$$2^x \times (2^2)^{x+3} = 2^4$$

$$2^x \times 2^{2x+6} = 2^4$$

$$3x+6=4$$

$$3x=-2$$

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



Find the equation of Line 2

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

Line 1 has equation $y = \frac{3}{2}x - 24$ $x=16$

Are the lines perpendicular?

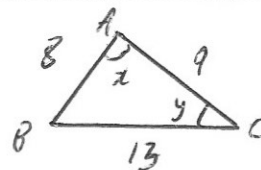
yes $m_1 \times m_2 = -1$

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

A triangle has sides of 8cm, 9cm and 13cm.

Calculate the difference between the smallest and largest angles.

$$99.59 - 37.36 = 62.23^\circ$$



Cosine rule

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

Angle A = 99.59°

Angle C = 37.36°