



Write down the value of

$$64^{\frac{2}{3}}$$

$$\sqrt[3]{64} = 4$$

$$4^2 = 16$$

Write down the value of

$$7^{-3}$$

$$\frac{1}{7^3} = \frac{1}{343}$$

Carl is making a drink by mixing orange juice and lemonade in the ratio 3 : 5

Carl has 57.5 litres of lemonade and 36 litres of orange juice.

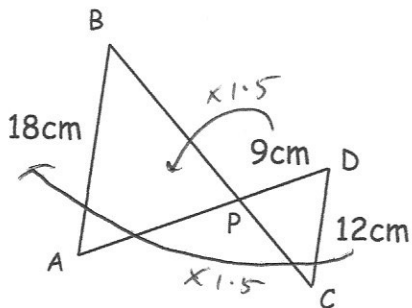
$$57.5 \div 5 = 11.5$$

$$11.5 \times 3 = 34.5$$

What is the maximum amount of the drink that Carl can make?

$$57.5 + 34.5$$

$$92 \text{ Litres}$$



Lines AB and CD are parallel
P is a point of AD, such that PD = 9cm

Find the length of AD.

$$9 \times 1.5 = 13.5$$

$$13.5 + 9 = 22.5 \text{ cm}$$

Find the equation of the straight line through (0, 8) which is perpendicular to the line $y = 4x + 1$

$$y = -\frac{1}{4}x + 8$$

Simplify

$$\frac{x^2 + 4x - 45}{x^2 + 10x + 9}$$

$$\frac{(x+9)(x-5)}{(x+9)(x+1)}$$

$$\frac{x-5}{x+1}$$