

RATIO

Ratios are another way of describing fractions

Expressing a ratio in it's simplest form is just like simplifying fractions

$$\begin{aligned} & \div 6 (12:6) \div 6 \quad \div 2 (10:4) \div 2 \quad \div 3 (15:18) \div 3 \\ & \quad 2:1 \quad \quad 5:2 \quad \quad 5:3 \end{aligned}$$

Dividing an amount into a ratio

Divide £18 between A & B into the ratio 1:2

A : B 1st add the parts $1+2=3$

1 : 2 A gets 1 out of 3 parts - $\frac{1}{3}$

$\frac{1}{3} : \frac{2}{3}$ B gets 2 out of 3 parts - $\frac{2}{3}$

Find $\frac{1}{3}$ of 18 = 6 A gets £6 & B gets $2 \times 6 = £12$

BASIC PROPORTION

DIRECT if 7 CDs cost £17.85 how much do 5 CDs cost?

$$\begin{aligned} & \div 7 (7 = £17.85) \div 7 \\ & \quad 1 = £2.55 \\ & \times 5 (5 = £12.75) \times 5 \end{aligned}$$

find the cost of 1 CD by dividing by 7 then multiply by 5

INVERSE it takes 3 men 5 days to build a wall how long would it take 5 men

$$\begin{aligned} & \div 3 (3 \text{ men} = 5 \text{ days}) \times 3 \\ & \quad 1 \text{ man} = 15 \text{ days} \\ & \times 5 (5 \text{ men} = 3 \text{ days}) \div 5 \end{aligned}$$

you do the opposite this time when you \div one side you \times the other & vice versa