

## TIME & WORK

The amount of work (W)

The number of persons doing it (P) And the time period of doing work (T).

If 'P<sub>1</sub>' persons can do 'W<sub>1</sub>' part of work a day for 'T<sub>1</sub>' days and 'P<sub>2</sub>' persons can do 'W<sub>2</sub>' part of work in 'T<sub>2</sub>' days, then we have a very general formula  $P_1 T_1 W_1 = P_2 T_2 W_2$

1.If A can do a piece of work in n days, then A's 1 day's work = 1/n

2.If A and B work together for n days, then (A+B)'s 1 days's work = 1/n

3.If A is twice as good workman as B, then ratio of work done by A and B = 2:1

4.Work from Days:

If A can do a piece of work in n days, then A's 1 day's work =  $\frac{1}{n}$ .

5.Days from Work:

If A's 1 day's work =  $\frac{1}{n}$ , then A can finish the work in n days.

6.If a men or b women can do a piece of work in n days, then c men and d women can do the work

$$\left( \frac{1}{\frac{1}{x} + \frac{1}{y}} \right)$$

in days

7.If A can do a work in x days, while B can do the same work in y days. They began to work. But A left n days

before its completion. Then the time, when whole work in finished  $\left( \frac{nab}{bc + ad} \right)$  days

8.If A can do a piece of work in x days and B can do the same work in y days, then both of them working

$$= \frac{y \times (x+n)}{x+y} \quad \left( \frac{xy}{x+y} \right)$$

together would take

i.e