ALL BRANCH (English)

General Aptitude

Quantitative Aptitude

DPP 07 Discussion Notes

Time & Work

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MCQ

If 72 men can build a wall 280m. long in 21 days, how many men will take 18 days to build a similar type of wall of length 100m.?

A 30

B 10

C 18

D 28

$$72 \times \frac{100}{280} \times \frac{21}{18} = 30$$

Men	Wall	Days
72	280 m	21
?	100 m	18

MCQ

A takes twice as much time as B or thrice as much time as C to finish a piece of work. Working together, they can finish the work in 2 days. B can do the work alone in

A. 12 days

B. 4 days

C. 8 days

D. 6 days

$A = 6x$; $B = 3x$; $C = 2x$

$A = 2B = 3C$ (Efficiency)

$$\frac{1}{6x} + \frac{1}{3x} + \frac{1}{2x} = \frac{1}{2}$$

$A : B : C = 1 : 2 : 3$

$$\frac{6}{6x} = \frac{1}{2}$$

Days $A : B : C = 6 : 3 : 2$

$x = 2$

$3 \times 2 = 6$

MCQ

A contractor undertook to finish a certain work in 124 days and employed 120 men on it. After 64 days, he found that he had already done 2/3rd of the work. How many men he can discharge now so that the work may finish in time.

A 24

B 56

C 64

D 80

$$120 \times \frac{64}{60} \times \frac{1}{3} \times \frac{3}{2}$$

$$= 64$$

Men	Days	Work
120	64	2/3
?	60	1/3

$$120 - 64 = 56$$

MCQ

A can do $3/4^{th}$ of a work in 12 days. In how many days can he finish $1/8^{th}$ of work?

$$12 \times \frac{1}{8} \times \frac{4}{3} = 2$$

Work	Days
$\frac{3}{4}$	12
$\frac{1}{8}$	?

A. 1 day

B. 2 days

C. 4 days

D. 8 days

MCQ

Peter does 75% of work in 12 days. He then calls Charlie for help and they both complete the rest of the work in 3 days. How many days would Charlie have taken to complete the work alone?

A 18 days

B 24 days

C 72 days

D 48 days

Peter Charlie → 'x' days

75% → 12

100% → $12 \times \frac{100}{75} \rightarrow 16$

Pt Charlie → 25% → 3

100% → 12

$P = \frac{1}{16}$ $C = \frac{1}{x}$

$\frac{1}{16} + \frac{1}{x} = \frac{1}{12}$

$\frac{1}{x} = \frac{1}{12} - \frac{1}{16} = \frac{1}{48}$

48

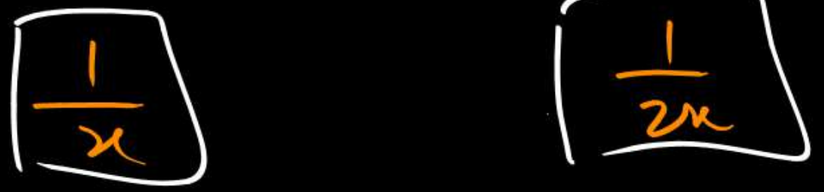
MCQ

If A is twice as good workman as B and therefore is able to finish a job in 40 days less than B, how many days will it take to finish the same job if A and B work together?

$2x - x = 40$

$x = 40$

A = x days B = $2x$ days



$\frac{1}{40} + \frac{1}{80} = \frac{3}{80} \Rightarrow \frac{80}{3} = 26\frac{2}{3}$ days

A $28\frac{1}{2}$ days

B 40 days

C $26\frac{2}{3}$ days

D 22 days

MCQ

Worker A alone can do a piece of work in 6 days and B alone in 8 days. A and B undertook to do it for ₹4000. With the help of worker C, they completed the work in 3 days. How much money will be given to C?

A ₹500

B ₹350

C ₹400

D ₹600

$A = \frac{1}{6}$; $B = \frac{1}{8}$; $C = \frac{1}{x}$

$A : B : C = 6 : 8 : 24$

$= 3 : 4 : 12$

$\frac{1}{6} + \frac{1}{8} + \frac{1}{x} = \frac{1}{3}$

Efficiency

$\Rightarrow \frac{1}{x} = \frac{1}{3} - \frac{7}{24} = \frac{1}{24}$

A : B : C

$= 48 : 36 : 12$

$= 4 : 3 : 1$

$C = \frac{1}{8} \times 4000$

$= 500$

MCQ

A and B can do a job together in 7 days. A is $1\frac{3}{4}$ times as efficient as B. How long does it take for A to do it alone?

(A) $9\frac{1}{3}$ days

(B) 11 days

(C) $15\frac{1}{2}$ days

(D) $17\frac{1}{3}$ days

$A = 4x$; $B = 7x$

$\frac{1}{4x} + \frac{1}{7x} = \frac{1}{7}$

$\frac{11}{28x} = \frac{1}{7}$

$x = \frac{11}{4}$

$A : B = \frac{7}{4} : 1$ (Efficiency)

$A : B = 1 : \frac{7}{4}$ (Days)

$= 4 : 7$

$A = 4 \times \frac{11}{4} = 11$

MCQ

A and B can do a work in 10 and 12 days. They start the work and B leaves after three days. If daily wages are Rs. 20 for each how much does A get?

A 150

B 90

C 100

D 130

7.5×20

$= 150$

$A = \frac{1}{10}$ $B = \frac{1}{12}$

$\frac{x}{10} + \frac{3}{12} = 1$

$6x + 15 = 60$

$6x = 45$

$x = \frac{45}{6} = 7.5$

MCQ

12 men can do a work in 15 days working 8 hours a day. In how many days can 9 men do the same work, working 10 hours a day?

$$15 \times \frac{12}{9} \times \frac{8}{10} = 16$$

Men	Days	hrs/day
12	15	8
9	?	10

A 10

B 16

C 18

D 24

Thank You!

GW Soldiers