

① Sum of scores.

$$= 70 + 75 + 80 = 225.$$

$$\text{Avg score} = 225 / 3 = \underline{\underline{75}}$$

② Sum of ages

$$10 + 12 + 14 + 16 + 18 = 70$$

$$\text{Avg} = 70 / 5 = 14$$

③ Total w = 5 boxes \times 10 Kg/box
 $= \underline{\underline{50 \text{ Kg}}}$

④ Total hours = 2 hrs/day \times 5 days
 $= 10 \text{ hrs}$

⑤ In 1 hr, machine does $1/4$ of work. To finish work it takes $1 / (1/4) = 4 \text{ hours}$

⑥ Man paints $1/3$ wall in 3 hrs. He paints $2/3$ wall in $2 \times 3 = 6$ hours

⑦ 6 workers do $1/8$ work in 1 day
1 worker does $= 1 / (6 \times 8)$
 $= 1 / 48$ work & do

⑧ Sum of $\underline{w_0} = 6 \times 15 = 90$

⑨ Total score = 4 matches \times
50 runs / match = 200 runs

⑩ If 4 workers take 12 days.
 $4 \times 12 = 48$

worker-days . 2 workers take
 $50 / 10 = 5$ days

⑪ If 5 workers take 12 days,
 $4 \times 12 = 48$
worker-days.

2 workers take $48/2 = \underline{\underline{24}}$ days.

A does $1/20$ work in 1 day
B does $1/x$ work in 1 day

A & B together $1/12$ work 1 day

$$\begin{aligned} 1/20 + 1/x &= 1/12, \text{ thus} \\ 1/x &= 1/12 - 1/20 = 2/60 - 1/60 \\ &= 1/60 = 1/30. \end{aligned}$$

B takes 30 days.

⑫ Man & son working together
complete the work in 15 day
Man alone completes in 20 days
Son's rate is $(1/15 - 1/20) = 1/60$
work per day.

\therefore The son alone takes 60 day
to complete the work

(14) Original sum = $5 \times 20 = 100$

New sum = $100 - 18 = 82$

New Avg = $82 / 4 = 20.5$

(15) Total weight 10 students ~~10 x 3~~
 $= 10 \times 30 = 300 \text{ kg}$

If 2 students leave, total weight
 $= 300 - 25 - 35 = 240 \text{ kg}$

New Avg = $240 / 8 = 30 \text{ kg}$

(16) A does $1/6$ work/day,

B does $1/8$ work/day

(17) C does $1/12$ work/day

Together $(1/6 + 1/8 + 1/12)$

$= (4 + 3 + 2) / 24$

$= 9 / 24$

$= 3/8$ work/day.

Time take = $8/3$ days

(17) sum of original 8 nos $= 8 \times 35$
 $= 280$

sum of excluded no $= 40 + 45 + 50$
 $= 135$

New sum $= 280 + 135 = 415$

New Avg $= 415 \div 11 = 37.73$

(18) If Avg of 10 no_s is 25.

Total $= 10 \times 25 = 250$

sum of remaining 10 no_s is
 $250 - x$

No info on what's removed

(or) how many are remaining

(19) A takes 15 days;
B takes 20 days

A starts for 5 days

$5/15 = 1/3$ work done.

Remaining work $1 - 1/3 = 2/3$

B complete remaining work.

$(2/3) \times 20 = 40/3 = 13.33$ day

work left is $2/3$

(20) sum of 7 no = $7 \times 30 = 210$

If one no is 42,

sum of 6 no = $210 - 42 = 168$

Avg of remain 6 no = $168/6 = 28$

(21) A, B, C's combined daily work

$$\left(\frac{1}{24} + \frac{1}{30} + \frac{1}{40} \right) = \left(\frac{5}{120} + \frac{4}{120} + \frac{3}{120} \right) = \frac{12}{120} = \frac{1}{10}$$

In 5 days, they complete $5 \times \left(\frac{1}{10} \right) = \frac{1}{2}$ of the work.

So, $\frac{1}{2}$ work remains.

(22) A's rate $\frac{1}{30}$.

Let A work x days alone, then

A + B work $(12 - x)$ days.

$$\frac{x}{30} + \frac{(12 - x)}{10} = 1$$

$$\Rightarrow x = 3$$

A works alone for 3 days

(23) Sum changes by $20 - 10 = 10$

New Sum: $500 + 10 = 510$

New Avg $\sim 510 / 10 = 51$

(24) Net fill rate: $1/8 - 1/12 = 1/24$
Tank fills in 24 hr

(25) Combined daily work:-

$$1/10 + 1/15 + 1/20.$$

$$\text{Work in 4 days: } 4 \times (13/60) \\ = 13/15.$$

$$\text{Remaining work: } 1 - 13/15 \\ = \underline{\underline{2/15}}.$$