1. (c)

	Time		Efficiency
P →	36 days		4
Q →	48 days	144	3
R →	144 days		1
P + Q + R		→ 8 unit	

    Let, P and Q did not leave jobs.
    then extra work:-
    $(12 \times 4) + (3 \times 8) = 72$ unit
    Total work = (144 + 72) = 216 unit
    Required time to complete this work

    by $(P + Q + R) = \frac{216}{8} = 27$ days.

2. (d)

	Time		Efficiency
A →	20		3
B →	30	60	2
C →	60		1

    Working According to question,

Days	Man	Work
1st ⟶	A ⟶	3
2nd ⟶	A ⟶	3
3rd ⟶	A + B + C ⟶	6
3 days ×5 ⟶		12 ×5
15 days ⟶		60 unit

    Hence, the work have been completed in 15 days.

3. (d) ATQ,
    3G = 5S
    G : S = 5 : 3
    Total work = 54 × 5 × 3 unit
    Required days

    $= \frac{54 \times 5 \times 3}{6 \times 5 + 8 \times 3} = \frac{54 \times 5 \times 3}{54} = 15$ days

4. (d)

	Time		Efficiency
A →	8 days		7
		56	
B →	7 days		8

    ATQ,

Days	Man	Work
1st ⟶	A ⟶	7
2nd ⟶	B ⟶	8
2 days ×3 ⟶		15 ×3
6 days ⟶		45 unit
1 days →	A →	7 unit
½ days →	B →	4 unit
7½ days ⟶		56 unit

    Hence, the work have been completed in $7\frac{1}{2}$ days.

5. (d)

	Time		Efficiency
P+Q →	30		4
Q+R →	24	120	5
R+P →	20		6
P + Q + R →		$\frac{15}{2}$	

    ATQ,
    10(P + Q + R) + nP = 120

    $10 \times \frac{15}{2} + n\left(\frac{15}{2} - 5\right) = 120$

    $75 + \frac{5}{2}n = 120$

    $\frac{5}{2}n = 45$

    n = 18 days

6. (d)

	Time		Efficiency
J →	20		7
		140	
R →	28		5

    ATQ,

    Time required = $\frac{140}{12} = 11\frac{2}{3}$ days

7. (d) ATQ,
    4M = 6B

    $\frac{M}{B} = \frac{3}{2}$

    Let, total work be 240 units
    then 6M + 11B ⇒ (18 + 22)

    Required time = $\frac{240}{40} = 6$ days

8. (c)

	Time		Efficiency
J →	42		9
		378	
R + J →	27		14

    ATQ,

    time = $\frac{14 \times 27}{5} = \frac{378}{5} = 75\frac{3}{5}$

9. (d)

	R	P
time	4	5
work	1	2
Eff.	5	8

    Let, total work = (24 × 13) units
    ∴ Parul takes time

    $= \frac{24 \times 13}{8} = 39$ days

10. (b) A can do a work in 25 days
    ATQ,
    5(A + B) + 5B + 5A = 36000
    ⇒ 10(A + B) = 36000
    A can do work in 1 day worth of

    $= Rs. \frac{36000}{25}$

    ∴ In 10 days $= \frac{36000}{25} \times 10$

    = 36 × 4 × 100 = Rs.14400

11. (b) No. of days A and B together take to complete given work

    $= \sqrt{25 \times 16}$

    = 20 days

12. (a) Let, 15 employees left after n days.

ATQ,

$75 \times 60 = (75 \times n) + (60 \times (65 - n)$

$4500 = 75n + 3900 - 60n$

$600 = 15n$

$n = 40$ days

13. (a)

Time   Efficiency

$A \rightarrow 16$ 3

48

$R \rightarrow 24$ 2

ATQ,

2 days → 5 units

18 days → 45 units

Next day, work done by A = 3 unit

∴ Total time = 19 days

14. (c)

Time   Efficiency

$T \rightarrow 7$ 2

14

$J \rightarrow 14$ 1

ATQ,

Time required = $\dfrac{14}{3} = 4\dfrac{2}{3}$ days

15. (d)

Time   Efficiency

$S \rightarrow 8$ 3

24

$R \rightarrow 12$ 2

ATQ,

Days	Man	Work
1st →	S →	3
2nd →	R →	2
2 days ×4 →		5 ×4
8 days →		20 unit
1 days →	S →	3 unit
$\frac{1}{2}$ days →	R →	1 unit
$9\frac{1}{2}$ days →		24 unit

Hence, the work have been completed in $9\dfrac{1}{2}$ days.

16. (b) $\dfrac{M_1 \times H_1 \times D_1}{W_1} = \dfrac{M_2 \times H_2 \times D_2}{W_2}$

$\dfrac{36 \times 48}{25} = \dfrac{45 \times D_2}{60}$

$\Rightarrow D_2 = \dfrac{48 \times 48}{25} = 92.16$ days

17. (a) ATQ,

$2m = 4w$

$m : w = 2 : 1$

Total work = $2 \times 2 \times 34 = 136$

Time taken by 6 men & 5 women to build this wall

$\Rightarrow \dfrac{136}{(6 \times 2 + 5 \times 1)} = \dfrac{136}{17} = 8$ days

18. (b)

Time   Efficiency

$A \rightarrow 24$ 5

120

$B \rightarrow 30$ 4

Morning shift   :   Evening shift
6(hrs)   4(hrs)

First day → A   B
         ↓   ↓
         5   Complete day   4

Second day → B   Complete day   A
         ↓   ↓
         4   5

Time		Work
2 days	→	9 unit
2 × 13 days	→	9 × 13 unit
26 days	→	117 unit

Work complete at 27th day

19. (c) ATQ,

Time   Efficiency

Vipin → 2   3

Vaibhav → 3   6   2

Chirag → 6   1

Required time → $\dfrac{6}{(3 + 2 + 1)} = \dfrac{6}{6}$

= 1 day

20. (c) ATQ,

Ratio of time → R : T : J
                   6 : 3 : 2

Ratio of efficiency → 1 : 2 : 3

Total work → (3 + 2 + 1)23

Tom can complete the work

= $\dfrac{6 \times 23}{2}$ = 69 hours

21. (d)

Time   Efficiency

$A + B \rightarrow 27$ 25

675

$C \rightarrow 75$ 9

Given that

Time ratio

$A = \dfrac{24}{10}(B + C)$

$A : B + C = 12 : 5$

Efficiency ratio

$A : B + C = (5 : 12)2$

$A + B : C = 25 : 9$

$A = 10, B = 15, C = 9$

Time taken by B to complete the

work = $\dfrac{27 \times 25}{15} = 45$ days

22. (d)

Arun can complete this work

$\Rightarrow \dfrac{2}{3}$ unit = 12

1 unit = 18 days

Arun can complete $\dfrac{1}{6}$ of this work

in = 3 days

23. (d)

Time   Efficiency

$A \rightarrow 36$ 1

36

$B \rightarrow 36$ 1

ATQ,

5 days → 10 units

6 days → 11 units

7 days → 13 units

8 days → 14 units

10 days → 18 units

11 days → 19 units

14 days → 25 units

15 days → 26 units

16 days → 27 units

20 days → 35 units

21 days → 36 units

∴ Work will be completed on 21 july 2021

24. (d)

$$\begin{array}{ccc} & \text{Time} & \text{Efficiency} \\ A \to & 11 \text{ days} & 20 \\ B \to & 20 \text{ days} \quad 220 \quad 11 \\ C \to & 55 \text{ days} & 4 \end{array}$$

ATQ,

(A + B, A + C) ....

2 days → 55 units

8 days → 220 units

Hence, the work will completed in 8 days.

25. (a)

$A = \dfrac{1}{5} \to 20$ days

$\to 20 \times 5 = 100$ days

$B \to 30\% = \dfrac{3}{10} \xrightarrow{\times 12} 36$ days

$\xrightarrow[\times 12]{} 120$ days

$C \to 80\% = \dfrac{4}{5} \xrightarrow{\times 20} 80$ days

$\xrightarrow[\times 20]{} 100$ days

$$\begin{array}{ccc} & \text{Time} & \text{Efficiency} \\ A \to & 100 \text{ days} & 6 \\ B \to & 120 \text{ days} \quad 600 \quad 5 \\ C \to & 200 \text{ days} & 3 \end{array}$$

ATQ,

x(B + C) + (x – 41) (A + C) = 600

x(8) + (x – 41) 9 = 600

$17x = 600 + 369$

$x = \dfrac{969}{17} = 57$ days

$\Rightarrow 2x = 114$

Work done by C in 114 days = 3 × 114

= 342 units

Work completed by C = $\dfrac{342}{600} = \dfrac{57}{100}$

26. (d) Case- I

Time taken by x and (y + z) = 3 : 1

Eff. = 1 : 3 = 5 : 15

Case- 2

Time taken by z and (y + x) = 4 : 1

Eff. = 1 : 4 = 4 : 16

Total work = 20 × 10 = 200 units

Time taken by x and z to complete the work = $\dfrac{200}{9} = 22\dfrac{2}{9}$ days

27. (b) Let the number of required percent = x

We know, $\dfrac{M_1 D_1 H_1}{W_1} = \dfrac{M_2 D_2 H_2}{W_2}$

$\Rightarrow \dfrac{25 \times 140}{1} = \dfrac{x \times 70}{1}$

$\Rightarrow x = 50$

28. (b) Let the total work be 1

Given,

A → 10 days

A + B → $2\dfrac{1}{2} = \dfrac{5}{2}$ days

B's Efficiency $= \dfrac{2}{5} - \dfrac{1}{10} = \dfrac{3}{10}$

B will finish the work in

$= \dfrac{1}{\frac{3}{10}} = \dfrac{10}{3}$ days

29. (b) 12M × 10 = 20B × 10

$\Rightarrow \dfrac{M}{B} = \dfrac{5}{3}$

Total Work = 12M × 10

= 12 × 5 × 10 = 600

Work done by 4 Men and 4 Boys in 4 days = (4 × 5 + 4 × 3) × 4

= 32 × 4 = 128

Part of the work done by 4 men and 4 boys in 4 days = $\dfrac{128}{600} = \dfrac{16}{75}$

30. (c) Let the total work = LCM(10, 15) = 30

$$\begin{array}{cc} A = 10 \text{ days} & 3 \\ & 30 \\ B = 15 \text{ days} & 2 \end{array}$$

With the help of C the whole work done in 5 days.

Efficiency of (A + B + C)

$= \dfrac{\text{Total Work}}{\text{Time Taken}} = \dfrac{30}{5} = 6$

C's Efficiency = 6 – (3 + 2) = 1

Hence, the C alone can finish the work in = $\dfrac{30}{1} = 30$ days

31. (b) Let the total work be 1.

A → 10 days

B → 15 days

Concept: The amount is distributed in the ratio of efficiency.

$\therefore \dfrac{\text{A's efficiency}}{\text{B's efficiency}} = \dfrac{\left(\frac{1}{10}\right)}{\left(\frac{1}{15}\right)} = \dfrac{3}{2}$

B's share = $\dfrac{2}{5} \times 1250 =$ Rs. 500

32. (c) Let the total work be 1.

A + M → 10 days

A → 15 days

∴ Maahi's efficiency

$= \dfrac{1}{10} - \dfrac{1}{15} = \dfrac{1}{30}$

Maahi can do the same work in

$= \dfrac{1}{\frac{1}{30}} = 30$ days

33. (d)

$$\begin{array}{cc} \text{Raju} \to 36 & 2 \\ \text{Angad} \to 18 \quad 4 & 72 \\ \text{Sumit} \to 24 & 3 \end{array}$$

∴ Work done by Altogether in

$= \dfrac{72}{(2+4+3)} = \dfrac{72}{9} = 8$ hours

34. (a) Total work = 60 × 40 = 2400 units

Work done by 60 men in 10 days = 600

Work done by 55 men in 10 days = 550

Work done by 50 men in 10 days = 500

Work done by 45 men in 10 days = 450

Left work = 2400 – 2100 = 300 units

⇒ 300 units work done by 40 men

in $= \dfrac{340}{40} = 7.5$ days

Total days = 10 + 10 + 10 + 10 + 7.5 = 47.5 days

35. (d) Let the total work be 1 unit. The work can be finished by A and

B in $= \dfrac{1}{\left(\frac{1}{8} + \frac{1}{11}\right)} = \dfrac{88}{19} = 4\dfrac{12}{19}$ days

36. (d)

$$\begin{array}{cc} A = 35 & 5 \\ & 180 \\ B = 45 & 4 \end{array}$$

Work done by A and B in 2 days = 2 × 9 = 18

Remaining Work = 180 − 18 = 162
Remaining Work done by B alone

$= \dfrac{162}{4} = 40.5$ days

37. (a) Given P = 2R $\Rightarrow \dfrac{P}{R} = \dfrac{2}{1}$

ATQ,
(P + Q) × 14 = (Q + R) × 21

$\Rightarrow \dfrac{2+Q}{Q+1} = \dfrac{21}{14}$

$\Rightarrow 2(2 + Q) = 3(Q + 1)$
$\Rightarrow 4 + 2Q = 3Q + 3$
$\Rightarrow Q = 1$
Thus, P = 2, Q = 1 and R = 1
Total work = (P + Q) × 14
= (2 + 1)×14 = 42 units
Hence, Q alone can do the work

in $= \dfrac{42}{1} = 42$ days .

38. (b) Let the number of committed men to do the work be x.
ATQ,
$\Rightarrow x \times 20 = (x - 5) \times 40$
$\Rightarrow 20x = 40x - 200$
$\Rightarrow -20x = -200$
$\Rightarrow x = 10$

39. (c) Let the total number of men required to finish the work in 10 days be x.
Now,
24 × 15 = x × 10

$\Rightarrow x = \dfrac{360}{10} = 36$

40. (b) ATQ,
(8M + 12W) × 4 = (6M + 14W) × 5
$\Rightarrow 32M + 48W = 30M + 70W$
$\Rightarrow 32M - 30M = 70W - 48W$
$\Rightarrow 2M = 22W$
$\Rightarrow M = 11W$

$\Rightarrow \dfrac{M}{W} = \dfrac{11}{1}$

Total Work = (8M + 12W) × 4
= (88 + 12) × 4 = 400 units

Work done 20 women only $= \dfrac{400}{20 \times 1}$

= 20 days

41. (d) Ankita = 20 days
Ankita + Somya = 12 days

Efficiency of Somya $= \dfrac{1}{12} - \dfrac{1}{20}$

$= \dfrac{5-3}{60} = \dfrac{1}{30}$

Somya can write manuscript in

$= \dfrac{1}{\frac{1}{30}} = 30$ days.

42. (d) Reena → 4 ⎫ 6
    Veena → 8 — 3 ⎬ 24
    Vimla → 12 ⎭ 2

Work done by altogether in

$= \dfrac{24}{11} = 2\dfrac{2}{11}$ hours

43. (c)
    | | A | : | B |
    | Efficiency | 2 | : | 1 |
Total work = (2 × 1) × 13 = 39

B completed work in $= \dfrac{39}{1}$

= 39 Days

44. (c) A — 10 ⎫ 1
       B — 5 ⎬ 10
                 2
2 Days work of (A + B) = (1 + 2) × 2 = 6
Nxet 3 days A'S work = 1 × 3 = 3
Remaing work = [10− (6 + 3)] = 1
1 work, C complete in 3 days
10 work, C complete in = 10 × 3
= 30 days
60% of total work, C completed

in $= 30 \times \dfrac{60}{100} = 18$ days

45. (c) A + B — 36 ⎫ 5
       B + C — 60 ⎬ 180 — 3
       C + A — 45 ⎭ 4
∵ 2(A + B + C) = 5 + 3 + 4 = 12
    A + B + C = 6
∴ Efficiency of A = 3
A alone completed the work in

$= \dfrac{180}{3} = 60$ days

46. (c)

	x	:	y	:	z
Time	3	:	$\dfrac{8}{3}$	:	$\dfrac{12}{5}$
	45	:	40	:	36
Efficiency	$\dfrac{1}{45}$	:	$\dfrac{1}{40}$	:	$\dfrac{1}{36}$
	8	:	9	:	10

∵ 8 + 9 + 10 = 27

1 hour work $= \dfrac{24}{27}$

∵ In 6 hours $= \dfrac{24}{27} \times 6 = \dfrac{16}{3}$

= 5 hours 20 min.

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47. (a) A + B — 36 ⎫ 5
       B + C — 60 ⎬ 180 — 3
       C + A — 45 ⎭ 4
∵ 2A + 2B + 2C = 12
∴ A + B + C = 6
B's Efficiency = 2
B alone can complete the work

in $= \dfrac{180}{2} = 90$ days

48. (a) A + B → 25 Days

$B \to 30 \times \dfrac{3}{2} = 45$ days

A + B — 25 ⎫ 9
B — 45 ⎬ 225
              5

$\dfrac{4}{15}$ work done by A alone in

$= \dfrac{225 \times \frac{4}{15}}{9-5} = \dfrac{225 \times 4}{15 \times 4} = 15$ Days

49. (c) P + Q — 12 ⎫ 3
       P — 18 ⎬ 36
                    2

Q alone can finish the two-third

of the work in $= \dfrac{36 \times \frac{2}{3}}{3-2} = 24$ Days

50. (c) A — 35 ⎫ 3
       B — 15 ⎬ 105
                    7
(A + B)'s 8 Days work = (3 + 7) × 8
= 80

Remaining work = 105 − 80 = 25

60% of Remaing work $= 25 \times \dfrac{60}{100} = 15$

Remaining work done by A in

$= \dfrac{15}{3} = 5$ Days

51. (d) A — 10 ⎫ 1
       B — 5 ⎬ 10
                 2
Work done by A & B together in first 2 days = (1 + 2) × 2 = 6 unit
Work done by A in next 3 days
= 3 × 1 = 3 unit
Remaining work = [10 − (6 + 3)] = 1
Remaining work 1 unit is completed by C in 3 days.

Column 1:

Now,

40% of total work = $10 \times \dfrac{40}{100} = 4$

C will complete this 4 unit work in $3 \times 4 = 12$ days

52. (b)

$$A : B$$
Efficiency $\quad 2 : 1$

Total work done by (A + B) in 13 days = $(2 + 1) \times 13 = 39$

39 unit work completed by A in

$= \dfrac{39}{2} = 19\dfrac{1}{2}$ days

53. (a)

P + Q —— 12 Days ⎤ 36 ⟨ 3
P —— 36 Days ⎦ $\qquad$ 1

Q can completed the whole work

$= \dfrac{36}{3-1} = 18$ Days

Two-third of work, completed by

Q in = $18 \times \dfrac{2}{3} = 12$ Days

54. (a) A —— 35 ⎤ 105 ⟨ 3
B —— 15 ⎦ $\qquad$ 7

(A + B)'s 7 days work = $(3 + 7) \times 7$ = 70

Remaining work = 105 – 70 = 35

60% of remaining work

$= 35 \times \dfrac{60}{100} = 21$

Remaining work completed by A

in $= \dfrac{21}{3} = 7$ Days

55. (b) ATQ,

$(4A + 6B) \times 5 = (5A + 10C) \times 4$
$= (3B + 4C) \times 10$

Now, $(4A + 6B) \times 5 = (3B + 4C) \times 10$

$\Rightarrow (4A + 6B) = (6B + 8C)$

$\Rightarrow 4A = 8C$

$\Rightarrow A : C = 2 : 1$

Again,

$(5A + 10C) \times 4 = (3B + 4C) \times 10$

$\Rightarrow 20A + 40C = 30B + 40C$

$\Rightarrow 20A = 30B$

$\Rightarrow A : B = 3 : 2$

$A : B : C = 6 : 4 : 3$

Total work = $(4A + 6B) \times 5$

$= (24 + 24) \times 5 = 240$

Number of boy's from school A can set up the exihibition in one day

$= \dfrac{240}{6} = 40$

Column 2:

56. (c) ATQ,

$$\dfrac{10 \times 12 \times 7}{1} = \dfrac{14 \times D \times 6}{1}$$

$\Rightarrow D = 10$

57. (c)

$A \to 6 \times \dfrac{5}{2} = 15$ days

$B \to 12 \times \dfrac{3}{2} = 18$ days

A → 15 ⟨ 6
$\qquad\qquad$ ⟩ 90 (Total Work)
B → 18 ⟨ 5

Work done by A and B in 6 days = $(6 + 5) \times 6 = 66$

Remaining work = 90 – 66 = 24

ATQ, 'C' complete the remaining work in 8 days.

Efficiency of 'C' = $\dfrac{24}{8} = 3$

A & C will complete the same work

in $= \dfrac{90}{(6+3)} = 10$ days

58. (a)

A → 30 ⟨ 3
B → 45 ⟨ 2 ⟩ 90
C → 90 ⟨ 1

Work done by A, B and C in 3 days = 3A + B + C
$= 3 \times 3 + 2 + 1 = 12$

Work done (A, B and C) in 21 days $= 12 \times 7 = 84$

Remaining work = (90 – 84) = 6

A will complete 6 unit work in =

$\dfrac{6}{3} = 2$ days

Total no. of required days = 21 + 2 = 23 days

59. (b)

$A \to 20 \times \dfrac{5}{4} = 25$ days

$B \to 15 \times \dfrac{4}{3} = 20$ days

A → 25 ⟨ 4
$\qquad\qquad$ ⟩ 100
B → 20 ⟨ 5

Work done by A and B in 10 days = $(4 + 5) \times 10 = 90$

Remaining work = (100 – 90) = 10

'C' complete the remaining work in 1 days

efficiency of 'C' = $\dfrac{10}{1} = 10$

Column 3:

B and C together can complete $\dfrac{3}{4}$ of the same work in

$= \dfrac{100 \times \dfrac{3}{4}}{(5+10)} = \dfrac{75}{15} = 5$ days

60. (c) A and B alone can do work in $(x + 8)$ and $(x + 18)$

A and B together can do the work in $= \sqrt{8 \times 18} = 12$

So, $x = 12$ days

A and B together completed the $\dfrac{5}{6}$

of the work in $= 12 \times \dfrac{5}{6} = 10$ days

61. (a)

$A \to 12 \times \dfrac{5}{2} = 30$ days

$B \to 16 \times \dfrac{3}{2} = 24$ days

A → 30 ⟨ 4
$\qquad\qquad$ ⟩ 120
B → 24 ⟨ 5

Work done by A & B in 10 days $= (4 + 5) \times 10 = 90$

Remaining work = (120 – 90) = 30

'B' alone will complete the

remaining work in = $\dfrac{30}{5} = 6$ days

62. (d) ATQ,

$$\dfrac{18 \times 32 \times 7}{1} = \dfrac{14 \times D \times 8}{1}$$

$\Rightarrow D = 36$

63. (c)

$A : B : C$
$4 : 2 : 3$

ATQ, $(7 + D) \times 4 = D \times 16$
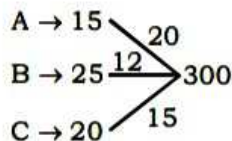
$\Rightarrow 28 + 4D = 16D$

$\Rightarrow 28 = 12D$

$\Rightarrow D = \dfrac{28}{12} = \dfrac{7}{3}$

Total work = $16 \times \dfrac{7}{3}$

'A' alone will finish 75% of the

same task in = $\dfrac{16 \times \dfrac{7}{3} \times \dfrac{3}{4}}{4} = 7$ days

64. (b)

$A \to 15$ ⟍ 20

$B \to 25$ ⟩ 300 (12)

$C \to 20$ ⟋ 15

Work done by A, B and C in 6 days
= (20 + 12 + 15) × 6
= 47 × 6 = 282

Remaining work = (300 – 282) = 18

'B' finished remaining work in =

$\frac{18}{12} = 1\frac{1}{2}$ days.

65. (a)

Vivek	Vishal
4	7

Vivek can do a work in 14 days

Total work = (14 × 4) = 56

Vivek can complete the work alone

in = $\frac{56}{7}$ = 8 days.

66. (b) Let the total work = 60

Efficiency of Vaibhav = 1

Vaibhav's 15 day's work = 15

Remaining work = 60 – 15 = 45

Sandeep Finishes the work in 30 days.

Efficiency of Sandeep = $\frac{45}{30}$ = 1.5

Both can do the work in = $\frac{60}{2.5}$

= 24 days

67. (b) ATQ,
(3M + 5W) × 6 = (4M + 9W) × 4
⇒ 18M + 30W = 16M + 36W
⇒ 2M = 6W

⇒ $\frac{M}{W} = \frac{3}{1}$

Total Work = (3M + 5W) × 6 = (3 × 3 + 5 × 1) 6 = 84

Number of women are required to do the same work in 7 days
⇒ W × 1 × 7 = 84
⇒ W = 12

68. (b)

$A \to 30$ ⟍ 4

⟩ 120

$B \to 40$ ⟋ 3
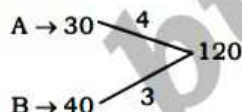
Work done by A and B in 10 days
= (4 + 3) × 10 = 70

Remaining work = (120 – 70) = 50

'C' alone completed the remaining work in = 15 days

efficiency of 'C' = $\frac{50}{15} = \frac{10}{3}$

'C' alone do $\frac{2}{3}$ of the same work

in = $\dfrac{120 \times \frac{2}{3}}{\frac{10}{3}} = \dfrac{80 \times 3}{10}$ = 24 days

69. (a) $\dfrac{M_1 \times D_1 \times T_1}{W_1} = \dfrac{M_2 \times D_2 \times T_2}{W_2}$

⇒ $\dfrac{45 \times 18 \times 8}{1} = \dfrac{M_2 \times 20 \times 9}{\frac{2}{3}}$

⇒ M_2 = 24

70. (d)

A	B	C
2	1	3

T.W = (6 × 5) = 30

Work done by A and C in 5 days
= 5 × 5 = 25

Remaining work = 30 – 25 = 5

'B' alone complete the remaining

work in = $\frac{5}{1}$ = 5 days

★★★★★