

Examrace

Aptitude Logical Reasoning Time and Work 2020 Competitive Exams Part 1

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1. A and B complete a work in 6 days. A alone can do it in 10 days. If both together can do the work in how many days?

- A. 3.75 days
- B. 4 days
- C. 5 days
- D. 6 days

Ans: A

$$\frac{1}{6} + \frac{1}{10} = \frac{8}{30} = \frac{4}{15}$$

$$\frac{15}{4} = 3.75 \text{ days}$$

2. A and B together can do a piece of work in 8 days. If A alone can do the same work in 12 days, then B alone can do the same work in?

- A. 20 days
- B. 16 days
- C. 24 days
- D. 28 days

Ans: C

Explanation: $B = \frac{1}{8} - \frac{1}{12} = \frac{1}{24} = 24 \text{ days}$

3. A can do a piece of work in 4 days. B can do it in 5 days. With the assistance of C they completed the work in 2 days. Find in how many days can C alone do it?

- A. 10 days
- B. 20 days
- C. 5 days
- D. 4 days

Ans: B

Explanation:

$$C = \frac{1}{2} - \frac{1}{4} - \frac{1}{5} = 120 = 20 \text{ days}$$

4. A and B can do a piece of work in $6\frac{2}{3}$ days and 5 days respectively. They work together for 2 days and then A leaves. In how many days after that B will complete the work alone.

A. 2 days

B. $1\frac{1}{2}$ days

C. 3 days

D. $3\frac{1}{2}$ days

Ans: B

Explanation:

$$\frac{3}{20} \times 2 + \frac{2 + x}{5} = 1$$

$$X = 1\frac{1}{2} \text{ days}$$

5. A can do a piece of work in 30 days. He works at it for 5 days and then B finishes it in 20 days. In what time can A and B together it?

A. $16\frac{2}{3}$ days

B. $13\frac{1}{3}$ days

C. $17\frac{1}{3}$ days

D. $16\frac{1}{2}$ days

Ans: B

Explanation:

$$\frac{5}{30} + \frac{20}{x} = 1$$

$$x = 24$$

$$\frac{1}{30} + \frac{1}{24} = \frac{3}{40}$$

$$\frac{40}{3} = 13\frac{1}{3} \text{ days}$$

6. A and B can do a piece of work in 12 days and 16 days respectively. Both work for 3 days and then A goes away. Find how long will B take to complete the remaining work?

- A. 15 days
- B. 12 days
- C. 10 days
- D. 9 days

Ans: D

Explanation:

$$\frac{3}{12} + \frac{3+x}{16} = 1$$

$X = 9$ days

7. A and B can do a piece of work in 3 days, B and C in 4 days, C and A in 6 days. How long will C take to do it?

- A. 18 days
- B. 20 days
- C. 24 days
- D. 30 days

Ans: C

Explanation:

$$2c = \frac{1}{4} + \frac{1}{6} - \frac{1}{3} = \frac{1}{12}$$

$$C = \frac{1}{24} = 24days$$

8. A can do a piece of work in 10 days. He works at it for 4 days and then B finishes it in 9 days. In how many days can A and B together finish the work?

- A. 6 days
- B. 8 days
- C. $8\frac{1}{2}$ days
- D. $7\frac{1}{2}$ days

Ans: A

9. A can do a piece of work in 40 days; B can do the same in 30 days. A started alone but left the work after 10 days, then B worked at it for 10 days. C finished the remaining work in 10 days. C alone can do the whole work in?

- A. 24 days
- B. 30 days
- C. 44 days
- D. $17\frac{1}{2}$ days

Ans: A

Explanation:

$$\frac{10}{40} + \frac{10}{30} + \frac{10}{x} = 1$$

$$x = 24 \text{ days}$$

10. A work which could be finished in 9 days was finished 3 days earlier after 10 more men joined. The number of men employed was?

- A. 18
- B. 20
- C. 22
- D. 24

Ans: B

Explanation:

$$X \text{ --- --- --- --- } 9$$

$$(x + 10) \text{ --- --- --- --- } 6$$

$$x \times 9 = (x + 10) 6$$

$$x = 20$$

11. A and B can do a piece of work in 7 days. With the help of C they finish the work in 5 days. C alone can do that piece of work in?

- A. 1 day
- B. 10 days
- C. 30 days
- D. 32 days

Ans: C

Explanation:

$$C = \frac{1}{5} - \frac{1}{6} = 30 \text{ days}$$

12. Ravi can do a piece of work in 30 days while Prakash can do it in 40 days. In how many days will they finish it together?

A. $17\frac{1}{7}$ days

B. $27\frac{1}{7}$ days

C. $23\frac{2}{7}$ days

D. $16\frac{4}{11}$ days

Ans: A

Explanation:

$$\frac{1}{30} + \frac{1}{40} = \frac{7}{120}$$

$$\frac{120}{7} = 17\frac{1}{7} \text{ days}$$

13. Anil can do a work in 15 days while Sunil can do it in 25 days. How long will they take if both work together?

A. $3\frac{4}{9}$ days

B. $8\frac{4}{9}$ days

C. $9\frac{3}{8}$ days

D. $6\frac{3}{8}$ days

Ans: C

Explanation:

$$\frac{1}{15} + \frac{1}{25} = \frac{8}{75}$$

$$\frac{75}{8} = 9\frac{3}{8} \text{ days}$$

14. A can do a job in 18 days and B can do it in 30 days. A and B working together will finish twice the amount of work in ----- days?

A. $21\frac{1}{2}$ days

B. $22\frac{1}{2}$ days

C. $23\frac{1}{2}$ days

D. $12\frac{1}{2}$ days

Ans: B

Explanation:

$$\frac{1}{18} + \frac{1}{30} = \frac{8}{90} = \frac{4}{45}$$

$$\frac{45}{4} = 11\frac{1}{4} \times 2 = 22\frac{1}{2} \text{ days}$$

15. A can do a piece of work in 10 days and B can do it in 15 days and C can do it 20 days. They started the work together and A leaves after 2 days and B leaves after 4 days from the beginning. How long will work last?

A. $8\frac{2}{3}$ days

B. $9\frac{2}{3}$ days

C. $10\frac{2}{3}$ days

D. 10 days

Ans: C

Explanation:

$$\frac{2}{10} + \frac{4}{15} + \frac{x}{20} = 1$$

$$x = \frac{32}{3} = 10\frac{2}{3}$$

16. A can do a piece of work in 12 days. When he had worked for 2 days B joins him. If the complete work was finished in 8 days. In how many days B alone can finish the work?

A. 18 days

B. 12 days

C. 24 days

D. 10 days

Ans: A

Explanation:

$$\frac{8}{12} + \frac{6}{x} = 1$$

$$X = 18 \text{ days}$$

17. A and B together can do a work in 6 days. If A alone can do it in 15 days. In how many days can B alone do it?

A. 10

B. 15

C. 12

D. 16

Ans: A

Explanation:

$$\frac{1}{6} - \frac{1}{15} = \frac{1}{10} = 10$$

18. A can do a piece of work in 15 days and B in 20 days. They began the work together but 5 days before the completion of the work, A leaves. The work was completed in?

A. 8 days

B. 10 days

C. 15 days

D. $11\frac{3}{7}$ days

Ans: D

Explanation:

$$\frac{x-5}{15} + \frac{x}{20} = 1$$

$$x = 11\frac{3}{7} \text{ days}$$

19. A, B and C can do a piece of work in 24, 30 and 40 days respectively. They start the work together but C leaves 4 days before the completion of the work. In how many days is the work done?

A. 15 days

B. 14 days

C. 13 days

D. 11 days

Ans: D

Explanation:

$$\frac{x}{24} + \frac{x}{30} + \frac{x}{40} = 1$$

$$x = 11 \text{ days}$$

20. A is thrice as efficient as B and is, therefore, able to finish a piece of work 10 days earlier than B. In how many days A and B will finish it together?

A. $3\frac{1}{2}$ days

B. $3\frac{4}{5}$ days

C. 3 days

D. 5 days

Ans: D

Explanation:

$$WC = 3 : 1$$

$$WT = 1 : 3$$

$$X = 3x$$

$$\frac{1}{x} - \frac{1}{3x} = \frac{1}{10}$$

$$x = \frac{20}{3}$$

$$\frac{3}{20} + \frac{1}{20} = \frac{1}{5} = 5 \text{ days}$$

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