RATE AND WORK

Drill 1 – Chain Rule

➢ If 9 men working 6 hours a day can do a work in 88 days. Then 6 men working 8 hours a day can do it in how many days?

    a. 100 days   b. 98 days   c. 99 days   d. 97 days

➢ If 5 women or 8 girls can do a work in 84 days. In how many days can 10 women and 5 girls do the same work?

    a. 8 days   b. 16 days   c. 24 days   d. 32 days

➢ If 4 men or 7 boys can do a work in 29 days then what time will 12 men and 8 boys take to do the same work?

    a. 8 days   b. 6 days   c. 4 days   d. 7 days

Drill 2 – Group Concept

➢ A contractor undertakes to do a piece of work in 40 days. He engages 100 men and after 35 days he engaged an additional 100 men and completes the work. How many days behind the schedule would the work have been, if he had not engaged the additional men?

    a. 5 days   b. 10 days   c. 15 days   d. 20 days

➢ 12 men complete a work in 9 days. After they have worked for 6 days, 6 more men joined them. How many days will they take to complete the remaining work?

    a. 1 day   b. 2 days   c. 5 days   d. 4 days

➢ 45 men can complete a work in 16 days. Six days after they started working, 45 more men joined them. How many days will they now take to complete the remaining work?

    a. 6 days   b. 9 days   c. 12 days   d. 14 days

➢ A contractor decided to complete a job 30 days for which he employed 20 men in beginning. After 10 days he released that job could not be completed on time. Hence employed 15 more men and thus completed job on time. Find the number of extra days it would have taken to complete the job if additional men were not employed?

    a. 6 days   b. 8 days   c. 10 days   d. 5 days

Drill 3 – Individual Concept

➢ A can do a work in 15 days and B in 20 days. In how many days can they finish the work together?

    a. 6 4/7 days   b. 8 4/7 days   c. 10 1/7 days   d. 5 5/7days

➢ A takes 8 hours to do a job. B takes 10hours to do the same job. How long it takes both A & B, working together but independently, to do the same job?

    40/3 hours   b. 40/9 hours'   c. 39/2 hours'   d. 39/4 hours

➢ A can finish a work in 18 days. B can do the same work in half the time taken by A. Working together, what part of the same work they can finish in a day?

    a. 1/3   b. ¼   c. 1/5   d. 1/6

Drill 4 – Specific Performance

➢ A can do a piece of work in 80 days. He works at it for 10 days and then B alone finishes the remaining work in 42 days. In how much time will A&B, working together, finish the work?

    a. 6 days   b. 12 days   c. 24 days   d. 30 days

➤ A can finish a work in 18 days and B can do the same work in 15 days. B worked for 10 days and left the job. In how many days A alone can finish the remaining work?

    a. 2 days   b. 4 days   c. 5 days   d. 6 days

➤ A can finish a work in 24 days, B n 9 days and C in 12 days. B&C start the work but are forced to leave after 3 days. The remaining work done by A in:

    a. 10 days   b. 20 days   c. 30 days   d. 40 days

Drill 5 – Work with wages

➤ A, Band C can complete a job in 4 days, 5 days and 6 days respectively. They work together and complete it. If their total wage is Rs.3700, find A's wage?

    a. Rs. 1200   b. Rs. 2000   c. Rs. 1500   d. Rs. 1400

➤ X, Y and Z take a job on contract for Rs.8000. X and Y started the job and completed 4/5 th of the job. Z then took over and completed the remaining work. Find Z's share.

    a. Rs. 1000   b. Rs. 1500   c. Rs. 1800   d. Rs. 1600

➤ P, Q and R can together earn RS.3100 in 10 days. Q and R together can earn RS.1320 in 6 days. P and R together can earn RS.1050 in 5 days. Find R's daily earning.

    a. Rs. 120   b. Rs. 220   c. Rs. 350   d. Rs. 400

Drill 6 – Efficiency determined

➤ R is thrice as good as workman as S and is therefore able to finish a piece of work in 40 days less than S. find the time in which they can do it working together?

    a. 15 days   b. 8 days   c. 27 days   d. 22 days

➤ A is 50% as efficient as B. C does half the work done by A&B together. If C alone does the work n 40 days, then A, B and C together can do the work in:

    a. 6 days   b. 10 1/3 days   c. 13 1/3 days   d. 14 1/3 days

➤ 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. 6 days   b. 3 days   c. 2 days   d. 8 days

Drill 7 – Pipes and Cisterns

➤ Two taps can fill a tank in 12 and 18 minutes respectively. Both are kept open for two minutes and then the first is turned off. In how many minutes more will the tank be filled?

    a. 12 minutes   b. 13 minutes   c. 14 minutes   d. CBD

➤ Two pipes A& B can fill a tank in 36 hours and 45 hours respectively. If both the pipes are opened simultaneously, how much time will be taken to fill the tank?

    a. 20 hours   b. 50 hours   c.25 hours   d. 30 hours

➤ Two pipes can fill a tank in 10 hours & 12 hours respectively, while 3rd pipe empties the full tank in 20 hours. If all the three pipes operate simultaneously, in how much time will the tank be filled?

    a. 8 hrs 30min   b. 7 hrs 30min   c. 5 hrs 30min   d. 6 hrs 30 min

PRACTICE PROBLEMS

1. If 12 men and 16 boys can do a piece of work in 5days; 13 men and 24 boys can do it in 4days , then find the ratio of the daily work done by a man to that of boy

a. 1:2   b. 3:2   c. 2:1   d. 2:3

2. A and B can do a piece of work in 45days and 40days respectively. They began to do the work together but A leaves after some days and then B completed the remaining work in 23days. Find the number of days after which A left the work

     a. 5   b. 11   c. 9   d. 7

3. A can alone audit the company's accounts in 12 days while B alone takes 3 more days than A. A and B undertook to do it for Rs.10,800 with the help of C they finish it in 5 days. How much is paid to C?

     a. Rs. 4500   b. Rs. 3600   c. Rs. 2700   d. Rs. 3000

4. A can do a piece of work n 7 days of 9 hours each and B alone can do it in 6 days of 7 hours each. How long will they take to do it working together 8 2/5 hours a day?

     a. 4 days   b. 2 days   c. 3 days   d. 5 days

5. X can do ¼ of a work in 10 days, Y can do 40% of work in 40 days and Z can do 1/3 of work in 13 days. Who will complete the work first?

     a. X   b. Y   c. Z   d. X or Y

6. X and Y can do a piece of work n 20 days and 12 days respectively. X started the work alone and then after 4 days Y joined him till the completion of work. How long did the work last?

     a. 10 days   b. 9 days   c. 8 days   d. 7 days

7. A can do a piece of work in 10 days, B in 15 days. They work for 5 days. The rest of work finished by C in 2 days. If they get Rs 1500 for the whole work, the daily wages of B and C are?

     a. Rs. 225   b. Rs. 200   c. Rs. 250   d. Rs. 275

8. A alone can complete a work in 16 days and B alone can complete the same in 12 days. Starting with A, they work on alternate days. The total work will be completed in how many days?

     a. 10 3/4 days   b. 11 3/4 days   c. 12 3/4 days   d. 13 3/4 days

9. A cistern has two taps which fill it in 12 min and 15 min respectively. There is also a waste pipe in the cistern. When all the three are opened, the empty cistern is full in 20 min. How long will the waste pipe take to empty the full cistern?

     a. 3   b. 4   c. 5   d. 10

10. A tap can fill a tank in 6 hours. After half the tank is filled, three more similar taps are opened. What is the total time taken to fill the tank completely?

     a. 4 hrs 30min   b. 5 hrs 30min   c. 3 hrs 20min   d. 3 hrs 45 min

11. A can do a certain work in the same time in which B and C together can do it. If A and B together could do it in 10 days and C alone in 50 days, then B alone could do it in how many days?

     a. 25 days   b. 35 days   c. 45 days   d. 55 days

12. A is thrice as good a workman as B and therefore is able to finish a job in 60 days less than B. Working together, they can do it in:

     a. 25/2 days   b. 35/2 days   c. 45/2 days   d. 55/2 days

13. A & B can do a work in 8 days, B & C can do the same work in 12 days. A,B & C together can finish in 6 days. A & C will do it in how many days?

     a. 6 days   b. 8 days   c. 10 days   d. 12 days

14. A man, a woman and a boy can complete a job in 3, 4 and 12 days respectively. How many boys must assist 1 man and 1 woman to complete the job in ¼ of a day?

     a. 15 days   b. 29 days   c. 54 days   d. 41 days

15. 12 men can complete a piece of work in 4 days, while 15 women can complete the same work in 4 days. 6 men start working on the job and after working for 2 days, all of them stopped working. How many women should be put on the job to complete the remaining work, if it is to be completed in 3 days?

     a. 15 days   b. 29 days   c. 54 days   d. 49 days