Time and Work

1. **Work from Days:**

|  |  |  |
| --- | --- | --- |
| If A can do a piece of work in *n* days, then A's 1 day's work = | 1 | . |
| *n* |

1. **Days from Work:**

|  |  |  |  |
| --- | --- | --- | --- |
| If A's 1 day's work = | 1 | , | then A can finish the work in *n* days. |
| *n* |

1. **Ratio:**

If A is thrice as good a workman as B, then:

Ratio of work done by A and B = 3 : 1.

Ratio of times taken by A and B to finish a work = 1 : 3.

4. If ‘A’ can do a work in ‘a’ days and ‘B’ can do it in ‘b’ days, then A and B together can do it in ab/(a+b) days.

5. Relation between Efficiency and Time : Efficiency is inversely proportional to the time (i.e., number of days, hours, minutes) etc. For ex if A is twice efficient as B, means, A takes half the time to finish the same job as B requires working alone.

6. M1\*D1\*H1\*W2 = M2\*D2\*H2\*W1

Where M is men, D is number of days, H is number of hours and W is work.

Q1. A is thrice as good a workman as B. What is the Ratio of Work done by A and B? What is the Ratio of Time taken by A and B to finish a Work?

Q2. If 12 men can finish a piece of work in 36 days in how many days 18 men can finish the same work?

Q3. A and B together can do a work in 60 days and A alone can do it in 80 days. In how many days B alone can do it?

Q4. A does a work in 10 days and B does the same work in 15 days. In how many days they together will do the same work?

Q5. A can finish a work in 18 days and B can do same work in half the time taken by A. then working together, what part of same work they can finish in a day

Q6. A and B can do a piece of work in 40 days and 60 days respectively. They work together for 12 days and then B leaves. In how may days the whole work is completed?

Q7. A is thrice as good a workman as B. Together they can do a work in 12 days. In how many days B alone can do the work?

Q8. If 10 men or 18 boys can do a piece of work in 15 days, then 25 men and 15 boys together will do twice the work in:

Q09. Working together, A and B can do a job in 6 days. B and C can do the same job in 10 days, while C and A can do it in 7.5 days. How long will it take if all A, B and C work together to complete the job?

Q10. A and B can do a work in 12 days and 9 days respectively. If they work on alternate days, A begins the work on which day will the work be completed?

Q11. A, B and C can do a piece of work in 20, 30 and 60 days respectively. In how many days can A do the work if he is assisted by B and C on every third day?

Q12. A can do a certain job in 25 days which B alone can do in 20 days. A started the work and was joined by B after 10 days. What would be the number of days taken in completing the whole work?

Q13. A piece of work can be done by 6 men and 5 women in 6 days or 3 men and 4 women in 10 days. It can be done by 9 men and 15 women in

Q14. A, B and C are employed to do a piece of work for Rs. 529. A and C are supposed to finish 19/23 of the work together. How much shall be paid to B?

Q15. Two pipes can fill the cistern in 10hr and 12 hr respectively, while the third empty it in 20hr. If all pipes are opened simultaneously, then the cistern will be filled in:

Q16. It takes 6 hours for pump A, used alone, to fill a tank of water. Pump B used alone takes 8 hours to fill the same tank. If three pumps: A, B and another pump C are used to fill the tank in 2 hours itself, what should be the rate of pump C? How long would it take pump C, used alone, to fill the tank?