

# Time and Work-QCS-13

1. A can do a piece of work in 30 days while B can do it in 40 days. In how many days A and B working together can do it? **(Ans-  $17\frac{1}{7}$  days)**
2. A can do  $\frac{1}{3}$  of a work in 5 days and B can do  $\frac{2}{5}$  of the work in 10 days. In how many days both A and B together can do the work? **(Ans-  $9\frac{3}{8}$  days)**
3. A and B can do a piece of work in 12 days; A, B and C working together can finish the work in 8 days. In how many days A alone will complete the work.  
**(Ans: 24 minutes)**
4. A and B can do a piece of work in 12 days, B and C in 15 days; C and A in 20 days. In how many days A alone can do the work? **(Ans: 30 days)**
5. A can complete a job in 9 days, B in 10 days and C in 15 days. B and C start the work and are forced to leave after 2 days. Find time taken to complete the remaining work? **(Ans: 6 days)**
6. A can do a piece of work in 14 days which B can do in 21 days. They begin together but 3 days before the completion of the work, A leaves. Find the total number of days to complete the work.  
**(Ans-  $10\frac{1}{5}$  days)**
7. The rates of working of A and B are in the ratio 3:4. The number of days taken by them to finish the work are in what ratio? **(Ans- 4:3)**
8. If 12 men or 18 women can reap a field in 14 days, then find the number of days that 8 men and 16 women will take to reap the same field.  
**(Ans- 9 days)**
9. 2 men and 7 boys complete a work in 14 days. 3 men and 8 boys complete that work in 11 days. In how many days 8 men and 6 boys will complete 3 times of this work? **(Ans- 21 days)**
10. Ram can do a piece of work in 8 days which Shyam can finish in 12 days. If they work at it on alternate days with Ram beginning, in how many days the work will be finished? **(Ans- 9.5 days)**
11. If 75 men can dig a trench 300 m long, 9m wide and 3m deep in 6 days working 5 hours a day, in how many days will 50 men dig another trench 540 m long, 6 m wide and 4.5 m deep working 4 hours a day. **(Ans-  $20\frac{1}{4}$  days)**
12. A contractor undertook to finish a certain work in 124 days and employed 120 men. After 64 days, he found that he had already done  $\frac{2}{3}$  of the work. How many men can be discharged now so that the work may be finished in time? **(Ans- 56 men)**
13. A garrison of 500 men has provisions for 60 days. At the end of 20 days 100 men leave. How long will the remaining provision last? **(Ans- 50 days)**
14. A and B undertook a job for Rs. 1400. A can do it alone in 7 days and B in 8 days. With the help of C, they finish the work in 3 days. How should the money be divided? **(Ans- A = 600, B=525, C=275)**
15. If the wages of 45 women amount to Rs. 15525 in 48 days, how many men must work for 16 days to receive Rs. 5750, the daily wages of a man being double that of a woman? **(Ans- 25 days)**
16. A, B and C completed a piece of work. A worked for 6 days. B for 9 days and C for 4 days. Their daily wages were in the ratio of 3:4:5. Find the daily wage of C if their total earning was Rs. 1480. **(Ans: Rs 100)**
17. Randhir is 1.5 times faster than Sudhir. If Randhir can complete a piece of work in 20 days, how long will it take both Randhir and Sudhir to complete the work? **(Ans- 12 days)**
18. A piece of work which could be finished in 9 days was finished 3 days earlier after 10 more men joined. What was the number of men employed?  
**(Ans- 20 men)**

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19. Some persons can do a piece of work in 12 days. In how many days two times the number of these persons will do half of that work? **(Ans- 3 days)**
20. If 12 men and 16 boys can do a piece of work in 5 days and 13 men and 24 boys can do it in 4 days, how long will 7 men and 10 boys take to do it?  
**(Ans-  $8\frac{1}{3}$  days)**
21. Twenty men can finish a piece of work in 30 days. After how many days should 5 men leave so that the work may be finished in 35 days? **(Ans- 15 days)**
22. 15 men take 21 days of 8 hours each to do a piece of work. How many days of 6 hours each would 21 women take to do the same if 3 women do as much work as 2 men? **(Ans- 30 days)**
23. To fill a cistern, pipes A, B and C take 20 minutes, 15 minutes and 12 minutes respectively. Find the time in minutes that the three pipes together will take to fill the cistern. **(Ans- 5 minutes)**
24. A cistern can be filled by pipes A and B in 20 hours and 30 hours respectively. The full tank can be emptied by pipe C in 40 hours. If all the taps be turned on at the same time, in how many days the cistern will be full? **(Ans-  $17\frac{1}{7}$  days)**
25. A cistern is normally filled in 8 hours, but takes 2 hours longer to fill because of a leak in its bottom. If the cistern is full, in how many hours the leak will empty it? **(Ans- 40 hours)**
26. One filler pipe is 5 times faster than the other and takes 48 minutes less than the other pipe to fill a tank. In how many minutes would the tank be full if both the pipes are opened simultaneously?  
**(Ans- 10 minutes)**
27. A cistern has three pipes X, Y and Z. X and Y are filler pipes used in filling the cistern in 4 and 5 hours respectively. Z is an exhaust pipe which empties it in 2 hours. If the pipes are opened in order at 4 a.m., 5 a.m. and 6 a.m. respectively, when will the cistern be empty? **(Ans- 8 P.M.)**
28. Two pipes A and B can separately fill a cistern in 10 minutes and 15 minutes respectively. A person opens both the pipes together. When the cistern should have been full, he finds the waste pipe open. He then closes the waste pipe and in another 4 minutes, the cistern was full. In what time can the waste pipe empty the cistern when full?  
**(Ans- 9 minutes)**
29. A, B, C are three pipes attached to a certain tank. A and B can fill it in 20 minutes and 30 minutes respectively, while C can empty it in 15 minutes. If A, B and C be kept open successively for 1 minute each, how soon will the tank be filled?  
**(Ans- 167 minutes)**
30. Two pipes A and B would fill a cistern in 20 and 24 minutes respectively. Both pipes being opened, find when the first pipe must be turned off so that the cistern may be just filled in 12 minutes.
31. **(Ans- 10 min)**