



MATHS

BOOKS - RS AGGARWAL MATHS (HINGLISH)

TIME AND WORK

Illustrative Examples

1. A alone can finish a piece of work in 12 days and B alone can do it in 15 days. If both of

them work at it together, how much time will they take to finish it ?



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2. A and B together can do a piece of work in 12 days, while B alone can finish it in 30 days. In how many days can A alone finish the work?



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3. A can do a piece of work in 25 days and B can finish it in 20 days. They work together for 5 days and then A goes away. In how many days will B finish the remaining work ?



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4. A and B can do a piece of work in 9 days; B and C can do it in 12 days; A and C can do it in 18 days. In how many days will A, B and C finish it working together and separately?





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5. A tap A can fill a cistern in 8 hours while tap B can fill it in 4 hours. In how much time will the cistern be filled if both A and B are opened together?



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6. A tap A can fill a cistern in 4 hours and the tap B can empty the full cistern in 6 hours. If both the taps are opened together in the

empty cistern, in how much time will the cistern be filled up?

A. 19 hours

B. 22 hours

C. 12 hours

D. 14 hours

Answer: C



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7. A tank can be filled by two taps *A* and *B* in 12 hours and 16 hours respectively. The full tank can be emptied by a third tap in 8 hours. If all the taps be turned on at the same time, in how much time will the empty tank be filled up completely?

A. 48 hours

B. 49 hours

C. 50 hours

D. 51 hours

Answer: A



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Exercise 13 A

1. Rajan can do a piece of work in 24 days while Amit can do it in 30 days. In how many days can they complete it they work together?



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2. Ravi can do a piece of work in 15 hours while Raman can do it in 12 hours. How long will both take to do it, working together?

A. 6 hours 40 minutes

B. 7 hours 40 minutes

C. 6 hours 50 minutes

D. 8 hours 40 minutes

Answer: A



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3. A and B working together can finish a piece of work in 6 days, while A alone can do it in 9 days. How much time will B alone take to finish it?

A. 18 days

B. 28 days

C. 38 days

D. 08 days

Answer: A



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4. Two motor mechanics, Taju and Siraj, working together can overhaul a scooter in 6 hours. Raju alone can do the job in 15 hours. In how many hours can Siraj alone do it?



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5. A , B and C can do a piece of work in 10 days, 12 days and 15 days respectively. How

long will they take to finish it if they work together?

A. *2days*

B. *3days*

C. *5days*

D. *4days*

Answer: *D*



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6. A can do a piece of work in 24 hours while B alone can do it in 16 hours. If A, B and C working together can finish in 8 hours, in how many hours will C alone do the work?



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7. A , B and C working together can do a piece of work in 8 hours. A alone can do it in 20 hours and B alone can do it in 24 hours. In

how many hours will C alone do the same work?



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8. A and B can finish a piece of work in 16 days and 12 days respectively. A started the work and worked at it for 2 days. He was then joined by B. Find the total time taken to finish the work



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9. A can do a piece of work in 14 days while B can do it in 21 days. They began together and worked at it for 6 days. Then A fell ill and B had to complete the remaining work alone. In how many days was the work completed?



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10. A can do $\frac{2}{3}$ of a certain work in 16 days and B can do $\frac{1}{4}$ of the same work in 3 days. In how many days can both finish the work, working together?



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11. A, B and C can do a piece of work in 15, 12 and 20 days respectively. They started the work together, but C left after 2 days. In how many days will the remaining work be completed by A and B?



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12. A and B can do a piece of work in 18 days .B and C in 24 days and A and C in 36 days .In what time can they do it , all works together



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13. A and B can do a piece of work in 12 days, B and C in 15 days respectively. If A is twice as good as a workman as C , in how many days will A alone complete the same work?

A. 20 days

B. 30 days

C. 40 days

D. 50 days

Answer: B



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14. Pipes A and B can fill an empty tank in 10 hours and 15 hours respectively. If both are opened together in the empty tank, how much time will they take to fill it completely?



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15. Pipe A can fill an empty tank in 5 hours while pipe B can empty the full tank in 6 hours. If both are opened at the same time in the empty tank, how much time will they take to fill it up completely?



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16. Three taps A, B and C can fill an overhead tank in 6 hours, 8 hours and 12 hours respectively. How long would the three taps take to fill the empty tank, if all of them are opened together?



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17. A cistern has two inlets A and B which can fill it in 12 minutes and 15 minutes respectively. An outlet C can empty the full cistern in 10

minutes. If all the three pipes are opened together in the empty tank, how much time will they take to fill the tank completely?



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18. A pipe can fill a cistern in 9 hours. Due to a leak in its bottom, the cistern fills up in 10 hours. If the cistern is full, in how much time will it be emptied by the leak?



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19. Pipe A can fill an empty tank in 6 hours and pipe B in 8 hours. If both the pipes are opened and after 2 hours pipe A is closed, how much time B will take to fill the remaining tank?



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Exercise 13 B

1. A alone can do a piece of work in 10 days and B alone can do it in 15 days. In how many days

will A and B together do the same work?

A. 5 days

B. 6 days

C. 8 days

D. 9 days

Answer: B



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2. A man can do a piece of work in 5 days. He and his son working together can finish it in 3 days. In how many days can the son do it alone?

A. $6\frac{1}{2}$ days

B. 7 days

C. $7\frac{1}{2}$ days

D. 8 days

Answer: C



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3. A can do a job in 16 days and B can do the same job in 12 days. With the help of C, they can finish the job in 6 days only. Then, C alone can finish it in

A. 34 days

B. 22 days

C. 36 days

D. 48 days

Answer: D



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4. एक काम को ख़त्म करने में A , B की तुलना में 50 % समय अधिक लेता है यदि दोनों मिलकर उस काम को 18 दिनों में ख़त्म कर सकते हैं तो B उस काम को कितने दिनों में करेगा ?

A. 30 days

B. 35 days

C. 40 days

D. 45 days

Answer: A



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5. A works twice as fast as B. If both of them can together finish a piece of work in 12 days, then B alone can do it in

A. 24 days

B. 27 days

C. 36 days

D. 48 days

Answer: C



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6. A alone can finish a piece of work in 10 days which B alone can do in 15 days. If they work together and finish it, then out of total wages of Rs 3000, A will get

A. Rs 1200

B. Rs 1500

C. Rs 1800

D. Rs 20000

Answer: C



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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 the ratio

A. 0.127777777777778

B. 0.386111111111111

C. 0.16875

D. 0.672916666666667

Answer: C



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8. A and B together can do a piece of work in 12 days; B and C can do it in 20 days while C

and A can do it in 15 days. A, B and C all working together can do it in

A. 6 days

B. 9 days

C. 10 days

D. $10\frac{1}{2}$

Answer: C



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9. 3 men or 5 women can do a work in 12 days.

How long will 6 men and 5 women take to do

it? (a) 6 days (b) 5 days (c) 4 days (d) 3 days

A. 6 days

B. 5 days

C. 4 days

D. 3 days

Answer: C



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10. A can do a piece of work in 15 days. B is 50 % more efficient than A , B can finish it in

A. 10days

B. $7\frac{1}{2}$ days

C. 12days

D. $10\frac{1}{2}$ days

Answer: A



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11. A does 20% less work than B. If A can finish a piece of work in $7\frac{1}{2}$ hours, then B can finish it in

A. 5 hours

B. $5\frac{1}{2}$ days

C. 6 hours

D. $6\frac{1}{2}$ days

Answer: C



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12. A किसी काम को 20 दिनों में कर सकता है जबकि बी उसी काम को 12 दिनों में कर सकता है B 1 दिनों तक काम करता है , तो बचा हुआ काम A कितने दिनों में समाप्त करेगा ?

A. 3 days

B. 5 days

C. 7 days

D. 11 days

Answer: B



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13. A can do a piece of work in 25 days , which B alone can do in 20 days. A started the work and was joined by B after 10 days. The work lasted for

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

B. 15 days

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

D. 14 days

Answer: C



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14. दो पाइप A और B एक टैंक को क्रमशः 20 मिनट और 30 मिनट में भर सकते हैं। यदि दोनों पाइप एक साथ खोल दिए जायें तो टैंक को भरने में कितना समय लगेगा ?

A. 10 minutes

B. 12 minutes

C. 15 minute

D. 25 minute

Answer: B



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15. एक नल किसी टंकी को 8 घंटे में भर सकता है और दूसरा पाइप 16 घंटे में खाली कर सकता है । यदि दोनों पाइपों को खोल दिया जाये तो टैंक कितने समय में भर जायगा ?

A. $5\frac{1}{3}$ hours

B. 10 hours

C. 16 hours

D. 20 hours

Answer: C



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16. A pump can fill a tank in 2 hours. Due to a leak in the tank it takes $2\frac{1}{3}$ hours to fill the tank. The leak can empty the full tank in

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

B. 7 hours

C. 8 hours

D. 14 hours

Answer: D



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17. A tank fills two taps A and B in 10 hours and 12 hours respectively, while the tap C empties it in 20 hours. If all three tubes are opened simultaneously In how long will the tank be filled?

A. 7 hrs 15 min

B. 7 hrs 30 min

C. 7 hrs 45 min

D. 8 hrs

Answer: B



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Test Paper 13

1. A can do a piece of work in 10 days while B alone can do it in 15 days . In how many days can both finish the same work?



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2. A and B can do a piece of work in 15 days, B and C in 12 days, C and A in 20 days . How many days will be taken by A, B and C working together to finish the work?



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3. Tap A can fill a cistern in 8 hours and tap B can empty it in 12 hours. How long will it take

to fill the cistern if both of them are opened together ?



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4. 2 men and 3 women can do a piece of work in 16 days . In how many days can 4 men and 6 women do the same work?



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5. पाइप A एक टंकी को 9 घंटे में भरता है । टंकी की तली में छेद होने के कारण इसे भरने में 10 घंटे लगते हैं । यदि टंकी , पूरी भरी हो , तो बताए छेद होने के कारण टंकी कितने समय में खाली हो जाएगी ?



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6. The rates of working of two tapes A and B are in the ratio 2:3. The ratio of the time taken by A and B respectively to fill a given cistern is

A. (2) : (3)

B. (3) : (2)

C. (4) : (9)

D. (9) : (4)

Answer: B



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7. A can finish a piece of work in 12 hours while B can finish it in 15 hours. How long will both take to finish it, working together?

A. 9 hours

B. $6\frac{2}{3}$ hours

C. $6\frac{3}{4}$

D. $8\frac{1}{3}$

Answer: B



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8. A can do a piece of work in 14 days and B is 40% more efficient than A. In how many days can B finish it ?

A. 10 days

B. $7\frac{1}{2}$ days

C. $5\frac{1}{4}$ days

D. $5\frac{3}{5}$ days

Answer: A



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9. A pump can fill a tank in 2 hours. Due to a leak in the tank it takes $2\frac{1}{3}$ hours to fill the tank. The leak can empty the full tank in

A. 7 hours

B. 14 hours

C. 8 hours

D. 3 hours

Answer: B



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10. A works twice as fast as B. If both of them can together finish a piece of work in 12 hours, then B alone can do it in

A. 24 hours

B. 27 hours

C. 36 hours

D. 18 hours

Answer: C



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Test Paper 13 Fill In The Blanks

1. A tap can fill a tank in 6 hours. The part of the tank filled in 1 hour is



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2. A B और क मिलकर एक काम को 6 दिन में पूरा कर सकते है और A अकेला उस 9 दिन में कर सकता है B अकेले उस काम को कितने दिन में कर सकेगा ?



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3. A can do a work in 16 hours and B alone can do it in 24 hours. If A, B and C working together can finish it in 8 hours, then C alone can finish it in..... hours.



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4. If A's one day's work is $\frac{3}{20}$, then A can finish the whole work in days.



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