1. 2 men and 5 women can do a work in 12 days. 5 men and 2 women can do that work in 9 days. Only 3 women can finish same work in   a) 36 days b) 21 days c) 30 days d) 42 days

2. 4 men and 5 women can complete a work in 15 days, whereas 9 men and 6 women can do it in 10 days. To complete the same work in 7 days, how many women should assist 4 men?
a)11 b)14 c)12 d)13

3. Humans and robots can both perform a job but at different efficiencies. Fifteen humans and five robots working together take thirty days to finish the job, whereas five humans and fifteen robots working together take sixty days to finish it. How many days will fifteen humans working together (without any robot) take to finish it?   a)36 b)32 c) 45 d)40

4. A tank is fitted with pipes, some filling it and the rest draining it. All filling pipes fill at the same rate, and all draining pipes drain at the same rate. The empty tank gets completely filled in 6 hours when 6 filling and 5 draining pipes are on, but this time becomes 60 hours when 5 filling and 6 draining pipes are on. In how many hours will the empty tank get completely filled when one draining and two filling pipes are on?

5. A water tank has inlets of two types A and B. All inlets of type A when open, bring in water at the same rate. All inlets of type B, when open, bring in water at the same rate. The empty tank is completely filled in 30 minutes if 10 inlets of type A and 45 inlets of type B are open, and in 1 hour if 8 inlets of type A and 18 inlets of type B are open. In how many minutes will the empty tank get completely filled if 7 inlets of type A and 27 inlets of type B are open?

6. 4 men and 6 women complete a task in 24 days. If the women are at least half as efficient as the men, but not more efficient than the men, what is the range of the number of days for 6 women and 2 men to complete the same task?
a) 30 to 33.6 days b) 32 to 35 days c) 33.6 to 35 days d) 30 to 35 days

7. A can do as much work in 4 days as B can do in 5, and B can do as much work in 6 days as C in 7. In what time will C do a piece of work which A can do in a week?

a) $10\frac{5}{24}$ days   b) $4\frac{4}{5}$ days
c) $6\frac{8}{15}$ days   d) $12\frac{6}{19}$ days

8. Anuj, Bibhuti and Chandu can lay 432 m of wires together in 8 days. In a day, Chandu can lay as many more meters of wire than Bibhuti as Bibhuti can lay more than Anuj. Chandu's 5 days of work is equivalent to Anuj's 7 days of work. How many meters of wire can Anuj alone lay in a day? a) 9 m b) 15 m c) 18 m d) 21 m

9. To do a certain work, the ratio of efficiency of A to that of B is 3:7. Working together, they can complete the work in 10 $1/2$ days. They work together for 8 days. 60% of the remaining work will be completed by A alone in:

a) $5\frac{1}{2}$ days   b) 5 days
c) $6\frac{1}{2}$ days   d) 4 days

10. A and B undertake to do a piece of work for Rs. 2200. A alone can do it in 8 days, while B can do it in 6 days. With the help of C, they complete it in 3 days. Find C's share.
a) Rs. 150 b) Rs. 275 c) Rs. 450 d) Rs. 300

11. Three persons undertake to complete a piece of work for Rs. 1200. The first person can complete the work in 8 days, second person in 12 days and third person in 16 days. They complete the work with the help of a fourth person in 3 days. What does the fourth person get?   a) 180 b) 200 c) 225 d) 250

12. P, Q, R are employed to do a work for Rs. 5750. P and Q together finished **19/23** of work and Q and R together finished **8/23** of work. Wage of Q, in rupees, is
a) 2850 b) 3750 c) 2750 d) 1000

13. The labourers A, B, C were given a contract of Rs. 750 for doing a certain piece of work. All the three together can finish the work in 8 days. A and C together can do it in 12 day, while A and B together can do it in 13 **1/3** days. The money will be divided in the ratio.?   a) 4 : 5 : 6 b) 4 : 7 : 5 c) 5 : 7 : 4 d) 5 : 6 : 8

14. Men, women and children are employed, to do a work, in the proportion of 3 : 2 : 1 and their wages as 5 : 3 : 2. When 90 men are employed, total daily wages of all amounts to Rs. 10,350. Find the daily wage of a man.
a) Rs. 115 b) Rs. 75 c) Rs. 45 d) Rs. 57.50

15. John gets Rs 57 per hour of regular work and Rs 114 per hour of overtime work. He works altogether 172 hours and his income from overtime hours is 15% of his income from regular hours. Then, for how many hours did he work overtime?

16. In a factory, there are equal number of women and children. Women work for 6 hours a day and children 4 hours a day. During festival time, the work load goes up by 50%. The government rule does not allow children to work for more than 6 hours a day. If they are equally efficient and the extra work is done by women, then extra hours of work put in by women every day are
a) 4 b) 9 c) 5 d) 3

17. In a factory, there are equal number of women and children. Women work for 6 hours a day and children 4 hours a day. During festival time, the work load goes up by 50%. The government rule

does not allow children to work for more than 5 hours a day. If women are twice as efficient as children and the extra work is done by women, then extra hours of work put in by women every day are

a) 4.5 b) 4 c) 5 d) 3.5

18. In a factory, the ratio of number of women and children is 2:3. Women work for 6 hours a day and children 4 hours a day. During festival time, the work load goes up by 50%. The government rule does not allow children to work for more than 5 hours a day. If women are twice as efficient as children and the extra work is done by women, then extra hours of work put in by women every day are   a) 4.25 b) 3.5 c) 3.25 d) 3.75

19. A drain pipe can drain a tank in 12 hours, and a fill pipe can fill the same tank in 6 hours. A total of n pipes – which include a few fill pipes and the remaining drain pipes – can fill the entire tank in 2 hours. How many of the following values could 'n' take?
i) 24 ii) 16 iii) 33 iv) 13 v) 9 vi) 8
a) 1 b) 2 c) 3 d) 4

20. A fill pipe can fill a tank in 20 hours, a drain pipe can drain a tank in 30 hours. If a system of n pipes (fill pipes and drain pipes put together) can fill the tank in exactly 5 hours, which of the following are possible values of n (More than one option could be correct)? 1) 32 2) 54 3) 29 4) 40
a) 1 and 2 only b) 1 and 3 only c) 2 and 4 only d) 2 and 3 only

21. A cistern of capacity 40 litres has an inlet and an outlet pipe. When both the pipes are opened at once, it takes 8 minutes to fill the cistern. However, if the outflow rate is increased 1.5 times, the cistern never gets filled. Which of the following can be the outflow rate?
a) 8 litres/minute b) 6litres/minute c) 12 litres/minute d) 9 litres/minute

22. A mining team made a plan to mine up to 300 m in a certain number of days. After working as per plan for 5 days, they added new members to the team and hence could mine 5 m more per day. In this way, 4 days before the planned date, they had mined 295 m. How many meters of mining was initially planned for each day?
a) 30 m b) 12.5 m c) 15 m d) 7.5 m

23. Consider three friends A, B and C who work at differing speeds. When the slowest two work together they take n days to finish a task. When the quickest two work together they take m days to finish a task. One of them, if he worked alone would take thrice as much time as it would take when all three work together. How much time would it take if all three worked together?
a) $3mn/2(m+n)$ b) $2mn/m+n$ c) $4mn/3(m+n)$ d) $5mn/3(m+n)$

24. Pipe A, B and C are kept open and together fill a tank in t minutes. Pipe A is kept open throughout, pipe B is kept open for the first 10 minutes and then closed. Two minutes after pipe B is closed, pipe C is opened and is kept open till the tank is full. Each pipe fills an equal share of the tank. Furthermore, it is known that if pipe A and B are kept open continuously, the tank would be filled completely in t minutes. How long will it take C alone to fill the tank ?
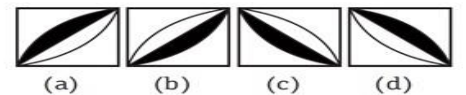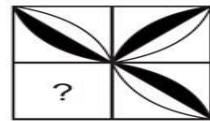a) 18 b) 36 c) 27 d) 24

25. B takes 12 more days than A to finish a task. B and A start this task and A leaves the task 12 days before the task is finished. B completes 60% of the overall task. How long would B have taken to finish the task if he had worked independently?
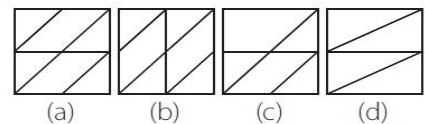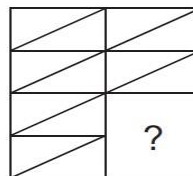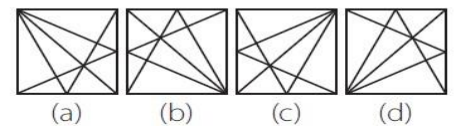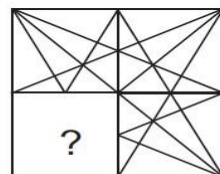a) 48 days b) 36 days c) 24 days d) 32 days

1.
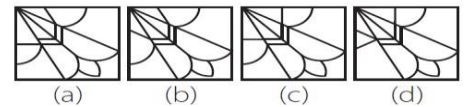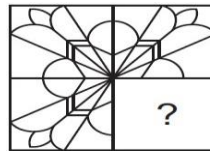
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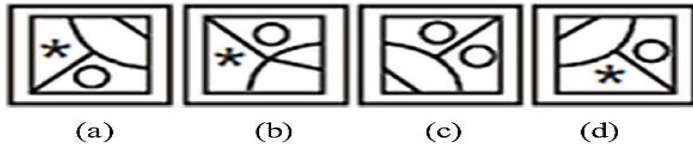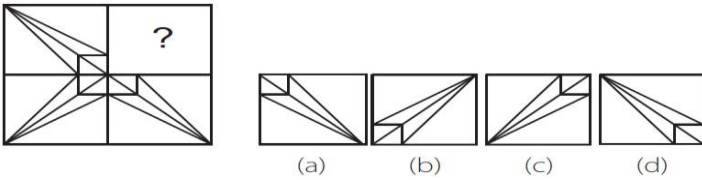

4.

5.

Question Figure:

Answer Figure:

(a)   (b)   (c)   (d)

6.

Question Figure:

Answer Figure:

(a)   (b)   (c)   (d)

7.

(a)   (b)   (c)   (d)

8.

(a)   (b)

(c)   (d)

9.

(a)   (b)

(c)   (d)

10.

(a)   (b)

(c)   (d)

11.

(a)   (b)

(c)   (d)

12.

(a)

(b)

(c)

(d)

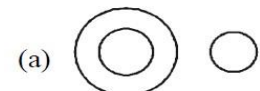13.

(a)

(b)

(c)

(d)
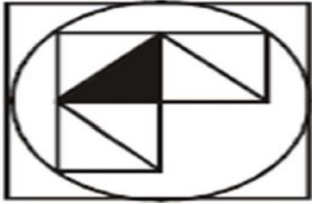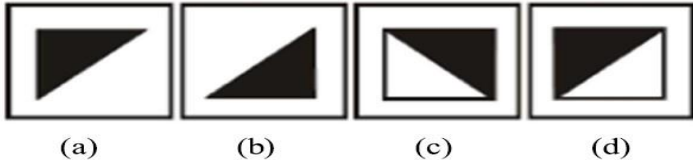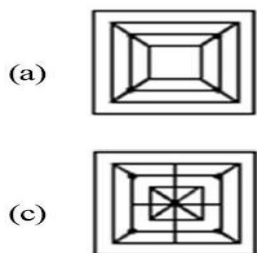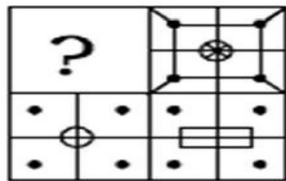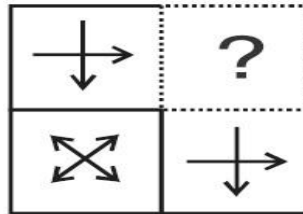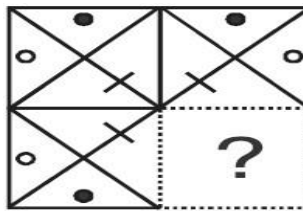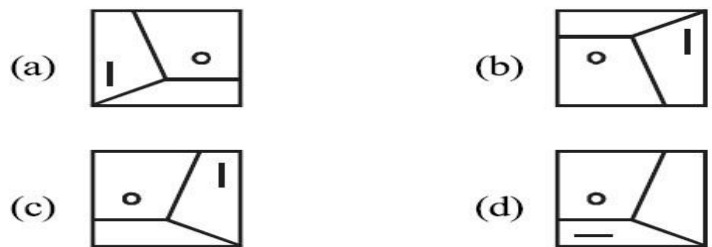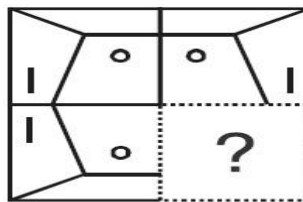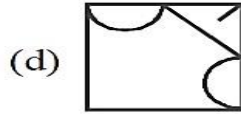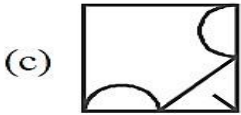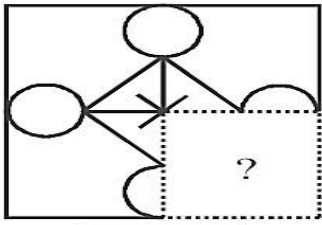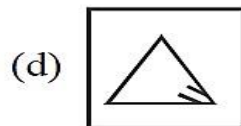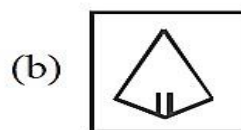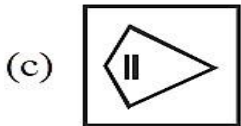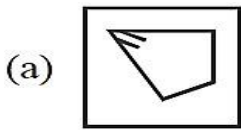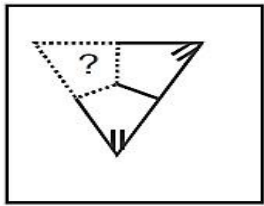
14.

Which of the following diagrams indicates the best relation between Singers, Athletes and Girls?
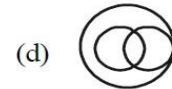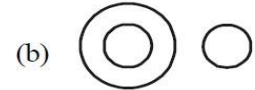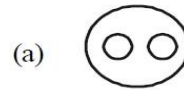
(a)

(b)

(c)

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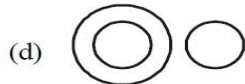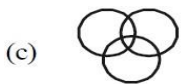
15.

Which of the following diagrams indicates the best relation between Factory, Product and Machinery ?
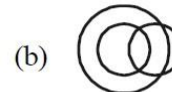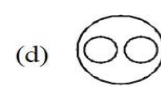
(a)

(b)

(c)

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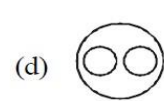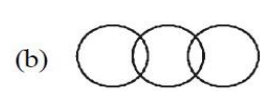
16.

Which of the following diagrams indicates the best relation between Doctors, Human Beings and Married People'?

(a)

(b)

(c)

(d)

17.

Which of the following diagrams indicates the best relation between Stamp, Pen and Chalk?

(a)
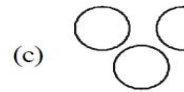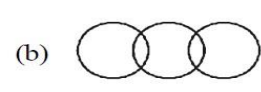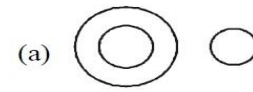
(b)

(c)

(d)

18.

Which of the following diagrams indicates the best relation between Biology, Zoology and Physics?

(a)

(b)

(c)

(d)

19.

Which of the following diagrams indicates the best relation between Leaf, Seed and Root?

(a)

(b)

(c)

(d)

20.

Which of the following diagrams indicates the best relation between Graduate, Teacher and Player?

(a)

(b)

(c)

(d)