



GG RS LEARNING HUB PVT. LTD.

IMO Class 07

Total Questions: 35

Time: 60 min

- If the sum of five consecutive integers is 'S', what is the largest of these integers in terms of S?
a) $(S - 10) / 5$ b) $(S + 10) / 5$
c) $(S + 5) / 5$ d) $S / 5 + 2$
- A number is increased by 20% and then decreased by 20%. The final number is what percent less than the original number?
a) 0% b) 4% c) 5% d) 10%
- In a triangle ABC, if $\angle A = 2\angle B$ and $\angle B = 3\angle C$, what type of triangle is it?
a) Equilateral b) Isosceles
c) Scalene d) Right-angled
- The ratio of the ages of two friends is 7:5. After 10 years, the ratio of their ages will be 9:7. What is the current age of the elder friend?
a) 25 years b) 35 years
c) 45 years d) 50 years
- A shopkeeper sells an item at a loss of 10%. If he had sold it for ₹180 more, he would have made a profit of 20%. What is the cost price of the item?
a) ₹540 b) ₹600
c) ₹720 d) ₹900
- What is the value of x if $(\frac{2}{3})^{(x+2)} = (\frac{3}{2})^{(x-4)}$?
a) 1 b) -1 c) 2 d) -2
- If the mean of 5 observations is 15, and the mean of another 3 observations is 11, what is the mean of all 8 observations?
a) 13 b) 13.5 c) 14 d) 14.5
- A rectangular garden is 60 m long and 40 m wide. A path of uniform width 2 m is to be made inside the garden. What is the area of the path?
a) 384 m^2 b) 400 m^2
c) 416 m^2 d) 2400 m^2
- If a number is chosen at random from the integers 1 to 20, what is the probability that it is a prime number?
a) $\frac{2}{5}$ b) $\frac{9}{20}$ c) $\frac{1}{2}$ d) $\frac{11}{20}$
- The sum of the digits of a two-digit number is 9. If the digits are reversed, the new number is 45 less than the original number. What is the original number?
a) 27 b) 36 c) 63 d) 72
- A car travels the first half of a journey at a speed of 40 km/h and the second half at a speed of 60 km/h. What is the average speed of the car for the whole journey?
a) 48 km/h b) 50 km/h
c) 52 km/h d) 55 km/h
- In an isosceles triangle, the vertex angle is 40° . What are the base angles?
a) $40^\circ, 100^\circ$ b) $50^\circ, 90^\circ$
c) $60^\circ, 80^\circ$ d) $70^\circ, 70^\circ$



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13. A sum of money doubles itself in 8 years at simple interest. What is the rate of interest per annum?
a) 10% b) 12.5% c) 15% d) 20%
14. What is the value of $0.1 \times 0.1 - 0.01 \times 0.01$?
a) 0.0099 b) 0.099
c) 0.99 d) 0.0009
15. If the diagonals of a rhombus are 16 cm and 12 cm, what is its perimeter?
a) 28 cm b) 40 cm
c) 56 cm d) 80 cm
16. A can do a piece of work in 15 days, and B can do it in 10 days. If they work together for 4 days, what fraction of the work is left?
a) $\frac{1}{3}$ b) $\frac{1}{4}$ c) $\frac{1}{5}$ d) $\frac{1}{6}$
17. If $x + \frac{1}{x} = 3$, what is the value of $x^2 + \frac{1}{x^2}$?
a) 7 b) 9 c) 11 d) 13
18. A train 150 m long is running at a speed of 90 km/h. How long will it take to cross a platform 300 m long?
a) 12 seconds b) 15 seconds
c) 18 seconds d) 20 seconds
19. If the exterior angle of a regular polygon is 45° , how many sides does it have?
a) 6 b) 8 c) 10 d) 12
20. The price of sugar is increased by 25%. By what percent should a family reduce its consumption so that their expenditure on sugar remains the same?
a) 20% b) 25%
c) 30% d) 33.33%
21. If the lengths of two sides of a triangle are 5 cm and 8 cm, which of the following can be the length of the third side?
a) 2 cm b) 3 cm
c) 12 cm d) 14 cm
22. A mixture of 40 litres of milk and water contains 10% water. How much water should be added to make the water 20% in the new mixture?
a) 4 litres b) 5 litres
c) 6 litres d) 8 litres
23. What is the unit digit of $(7^{95}) - (3^{58})$?
a) 0 b) 4 c) 6 d) 7
24. In a class, the ratio of boys to girls is 4:3. If there are 28 boys, how many students are there in the class?
a) 35 b) 42 c) 49 d) 56
25. If the circumference of a circle is decreased by 50%, what will be the percentage decrease in its area?
a) 25% b) 50% c) 75% d) 100%
26. The average of 11 results is 50. If the average of the first 6 results is 49 and that of the last 6 results is 52, what is the 6th result?
a) 50 b) 52 c) 56 d) 60



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27. A number when divided by 5 leaves a remainder of 3. What will be the remainder when the square of the same number is divided by 5?
- a) 1 b) 2 c) 3 d) 4
28. If the selling price of 10 articles is equal to the cost price of 12 articles, what is the gain percent?
- a) 10% b) 15% c) 20% d) 25%
29. What is the value of x in the equation:
 $2(x - 3) - 3(x - 4) = 5$?
- a) 1 b) -1 c) 2 d) -2
30. A bag contains 5 red, 8 blue, and 7 green balls. If a ball is drawn at random, what is the probability that it is not a blue ball?
- a) $\frac{2}{5}$ b) $\frac{3}{5}$ c) $\frac{4}{5}$ d) $\frac{1}{2}$
31. If the simple interest on a certain sum of money for 2 years at 5% per annum is ₹1600, what is the sum?
- a) ₹8000 b) ₹12000
c) ₹16000 d) ₹20000
32. The angles of a quadrilateral are in the ratio 1:2:3:4. What is the measure of the largest angle?
- a) 72° b) 108° c) 144° d) 180°
33. A man's salary is increased by 10% and then decreased by 10%. What is the change in his salary?
- a) 1% increase b) 1% decrease
c) No change d) 2% decrease
34. If a and b are two consecutive integers such that $a < b$, what is the value of $b^2 - a^2$?
- a) 1 b) $a + b$
c) $2a + 1$ d) Both b and c
35. The sum of the ages of a father and his son is 45 years. Five years ago, the product of their ages was 4 times the father's age at that time. What are their present ages?
- a) 35, 10 b) 36, 9
c) 39, 6 d) 40, 5