

Percentages

1. In an examination, 40% marks are required to pass the exam. X obtains 10% less than the number of marks required to pass. Y obtains $11\frac{1}{9}\%$ less than X and Z obtained $41\frac{3}{17}\%$ less than the number of marks obtained by X and Y together. What marks did Z get?
a) 50 b) 40 c) 35 d) 45
2. Bittu spends 40% of his salary on food items, 50% of remaining on transport, 30% of remaining after spending on food and transport; he spends on clothes and saves the balance. If he saves Rs. 630 every month, what is his monthly salary?
a) 1500 b) 3000 c) 5000 d) 6500
3. The Rice sold by grocer contained 10% low quality rice. What quantity of good quality rice should be added to 150 kg of rice so that the percentage of low quality rice becomes 5%?
a) 50 b) 85 c) 135 d) 150
4. The present population of a town is 5500. If the number of males increased by 11% and the number of females increased by 20%, then the population will become 6330. What is the present population of females in the town?
a) 2000 b) 2500 c) 3000 d) 3500
5. A Plant was planted 3 years ago. The rate of its growth is 30% per annum. If at present, the height of the plant is 670 cm, what was it when the plant was planted?
a) 305 cm b) 405 cm c) 500 cm d) 625 cm
6. When the price of salt was increased by 32%, a family reduced its consumption in such a way that the expenditure on salt was only 10% more than before. If 30 kg per month were consumed before, find the new monthly consumption?
a) 42 b) 35 c) 25 d) 16
7. A man income is increased by Rs 1200 and at same time the rate of tax to be paid is reduced from 12% to 10%. He now pays the same amount of tax as before. What is his increased income, if 20% of his income is exempted from tax in both cases?
a) 6300 b) 7200 c) 4500 d) 6500
8. Mr. Pedu buys a generator for Rs 1 lakh and rent it. He puts 12.5% of each month's rent aside for upkeep and repairs pay Rs 325 per year as taxes and realize 5.5% annually on his investment. Find the monthly rent?
a) 634.76 b) 654.76 c) 554.76 d) 456.32
9. Ajju factory kept increasing its output by the same percentage every year. Find the percentage if it is known that his output is doubled after two years?
a) $100\sqrt{2}\%$ b) $100(\sqrt{2} + 1)\%$ c) $100(\sqrt{2} - 1)\%$ d) $50(\sqrt{3} - 1)\%$

10. The tax on a commodity is diminished by 10% and its consumption increased by 10%. The effect on the revenue derived from it is P% change. Find the value of P?

a) 1 b) 2 c) -1 d) -2
11. A solution of Honey syrup has 15% honey. Another solution has 5% honey. How many liters of the second solution must be added to 20 L of first solution to make a solution of 10% honey ?

a) 10 L b) 5 L c) 15 L d) 20 L
12. Two gallons of a mixture of milk and water contain 12% of water. They are added to 3 gallons of another mixture, containing 7% of water and half a gallon of water is then added to the whole. Find the percentage of water in the resultant mixture?

a) $17\frac{3}{11}\%$ b) $16\frac{12}{11}\%$ c) $14\frac{1}{11}1\%$ d) None of these
13. The difference between 38% of a number and 24% of the same number is 135.10. What is 40% of that number?

a) 394 b) 370 c) 378 d) 386
14. In an examination Sohit obtained 20% more than Rohit but 10% less than Rajesh. If the marks obtained by Rohit are 1080, find the percentage marks obtained by Rajesh if the full marks are 2000?

a) 72% b) 78.33% c) 86.66% d) None of these
15. Out of the total production of copper from ore, 20% of the ore gets wasted. Out of remaining copper only 25% is pure copper. If the pure copper obtained in a year was 80000 kg, then the quantity of ore in year is

a) 400000 kg b) 500000 kg c) 450000 kg d) 600000 kg
16. The population of a City is 10000. If the population increased by 10% in first year, 20% in second year and decreases by 5% in third year, what will be its population after 3 year ?

a) 13860 b) 11540 c) 12860 d) 12540
17. A vessel full of spirit contains 40% water. A part of this spirit is replaced by containing 19% water now the percentage of water is found to be 26%. The quantity of spirit replaced is

a) $\frac{2}{3}$ b) $\frac{1}{3}$ c) $\frac{3}{7}$ d) $\frac{4}{7}$
18. One liter of water is evaporated from 6 L of solution containing 5% sugar. Find the percentage of sugar in the remaining solution?

a) 8% b) 10% c) 6% d) 4%
19. There are two candidates Anu and Manu for an election. Anu gets 65% of total valid votes. If total votes were 6000, what is the number of valid votes that the other candidate Manu gets if 25% of total votes were declared invalid?

a) 1575 b) 1625 c) 1675 d) 1525

20. In a medical certificate by mistake a person gave his height as 25% more than actual. In the interview, he clarified that his height was 5 ft 5 inches. Find the percentage correction made by candidate from his stated height to his actual height?
- a) 28.56 b) 20 c) 25 d) None of these
21. In a Hindi exam, a student scored 30% in first paper out of total of 180. How much should he score in the second paper (out of 150) if he is to get at least 50% marks overall?
- a) 75% b) 80% c) 74% d) 84%
22. The present worth of bill due 7 months hence is Rs 1200. If the bill were due at the end of $2\frac{1}{2}$ year, its present worth would be Rs 1016. The rate percent of the bill is
- a) 16% b) 8% c) 10% d) 18%
23. If A is 150% of B, then B is what percent of A+B?
- a) $33\frac{1}{3}\%$ b) 40% c) 75% d) 80%
24. The price of diesel is increased by 25%. How much percent must a truck owner reduce his consumption of diesel as to increase his expenditure on diesel?
- a) 25% b) 50% c) 30% d) 20%
25. 50 g of an alloy of copper and lead contains 80% copper (by wt). The quantity of copper that is to be mixed up with this alloy, so that it may contain 95% copper is
- a) 200 g b) 50 g c) 150 g d) 10 g
26. From the income of an employee, 10% is deducted as house rent, 15% of rest spend on chocolate and 10% of balance on toys. After this expenditure he is left with Rs 1377. His income is
- a) 2000 b) 2040 c) 2100 d) 2200
27. In a test, there were 2000 candidates, out of which 900 candidates were Men and the rest were Women. If 32% of men and 38% women passed, then the total percentage of failed candidates is
- a) 68.5% b) 64.7% c) 35.3% d) 70%
28. If the price of beer increases by 30%, find how much the quantity of Cans must be reduced so that expenditure may remain the same as before?
- a) 30% b) $23\frac{1}{13}\%$ c) $27\frac{2}{13}\%$ d) 19%
29. In a factory, there are 75% skilled workers and remaining unskilled. 80% of skilled and 20% of unskilled are permanent. If number of temporary worker is 126, then what is the number of total workers?
- a) 480 b) 510 c) 360 d) 377

30. There were two parties in an election. 10% of voters did not vote. 60 votes were declared invalid. The elected party got 308 votes more than his opponent. If elected party got 47% of total votes, how many votes did each party get?
 a) 2316 & 2012 b) 2629 & 2324 c) 2871 & 2575 d) 2914 & 2606
31. If the height of a triangle is decreased by 40% and base increased by 40%, what is the effect on its area ?
 a) No Change b) 8% decrease c) 16% decrease d) 16% increase
32. Population of a Colony is 296000 out of which 166000 are Boys. 50% of population is literate. If 70% males are literate, then the number of Girls, who are literate, is
 a) 32200 b) 31800 c) 66400 d) 48000
33. The population of a Country is increases at a rate of 4% per annum. There is an additional annual increase of 1% in the population due to new born babies. The percentage increase in the population after 2 year is
 a) 10% b) 10.25% c) 10.50% d) 10.75%
34. The population of Virus culture doubles every 2 min. approximately, how many minutes will it take for the population to grow from 1000 to 500000 bacteria?
 a) 10 min b) 12 min c) 14 min d) 18 min
35. If $p\%$ of S is equal to $q\%$ of T , then $r\%$ of T is what percent of S ?
 a) $r\%$ b) $\frac{pr}{q}\%$ c) $\frac{qr}{p}\%$ d) $pqr\%$
36. $G\%$ of H is $H\%$ of
 a) G b) $\frac{H}{100}$ c) $\frac{G}{100}$ d) $100G$
37. A person receives a 5% raise. A year later, the person receives a 2.5% cut in pay and now the amount is Rs. 22702.68. What was his amount to begin with?
 a) 22000 b) 22176 c) 25000 d) 22193
38. A reduction of 20% in the price of Flour enables a purchaser to obtain $2\frac{1}{2}$ kg more for Rs. 160. Find the original price per kg of Flour.
 a) 12 b) 15 c) 16 d) 18
39. Which of the following multipliers will cause a number to be increased by 25.3% ?
 a) 12.53 b) 125.3 c) 1.253 d) 1253
40. When the price of a TV was reduced by 20%, its sale increased by 80%. What was the net effect on the sale?
 a) 44% increase b) 44% decrease c) 66% increase d) 75% increase
41. How many liters of pure juice are there in 8 liters of a 20% solution?
 a) 1.5 b) 1.6 c) 1.7 d) 1.8
42. A man saved Rs. 2.50 in filling his bike petrol tank full. If He spent Rs. 25 for the petrol, approximately how much percent he saved in the transaction?
 a) 9% b) 10% c) 11% d) 12%

43. If number A is 10% less than another number A1 and A1 is 10% more than 125, then find out the value of A

- a) 123.55 b) 123.65 c) 123.75 d) 123.85
- Comment on this question

44. Raghav's salary was decreased by 50% in first year and again increased by 50% in second year. How much percent does he loss in his salary during these two years.

- a) 75 b) 65 c) 45 d) 25

45. An employee multiplied his salary by $\frac{3}{5}$ instead of $\frac{5}{3}$. What is the % error in his salary.

- a) 64% b) 65% c) 66% d) 67%

46. If J% of K is 100 and K% of L is 200, then find the relation between J and L.

- a) $L = J$ b) $2L = J$ c) $L = 2J$ d) None of above

47. Total number of boys and girls in a institute is 150. If the number of boys is B, then girls become B% of the total number of students in the institute. The number of boys is

- a) 50 b) 60 c) 70 d) 80

48. B as a percentage of A is equal to A as a percentage of (A+B). Find B as a percentage of A.

- a) 62% b) 73% c) 41% d) 57%

49. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:

- A. 39, 30 B. 41, 32 C. 42, 33 D. 43, 34.

50. One bacterium splits into eight bacteria of the next generation. But due to environment only 50% of one generation can produce the next generation. If the seventh generation number is 4096 million, then what was the number in first generation?

- (a) 1 million (b) 2 million (c) 4 million (d) 8 million

51) If Ken's salary were 20% higher, it would be 20% less than Lorena's. If Lorena's salary is \$60,000, what is Ken's salary?

- A. \$50,000 B. \$40,000 C. \$30,000 D. None of the above