PERCENTAGES

► **Percent:**

► The 'percent' is derived from the Latin word 'Per centum'. It implies "out of every hundred".

► The symbol '%' is used to denote percentage. For example, 15% means 15 out of 100. Each ratio can be expressed as a percentage.

► For example, ½ can be expressed as a percentage by multiplying by 100; $1/2 \times 100 = 50\%$

Some common percentages

$$\frac{1}{2} = 50\%$$

$$\frac{1}{3} = 33\frac{1}{3}\%$$

$$\frac{2}{3} = 66\frac{2}{3}\%$$

$$\frac{1}{4} = 25\%$$

$$\frac{3}{4} = 75\%$$

$$\frac{1}{5} = 20\%$$

$$\frac{5}{6} = 83\frac{1}{3}\%$$

$$\frac{1}{7} = 14\frac{2}{7}\%$$

$$\frac{2}{7} = 28\frac{4}{7}\%$$

$$\frac{3}{7} = 42\frac{6}{7}\%$$

$$\frac{1}{8} = 12\frac{1}{2}\%$$

$$\frac{3}{8} = 37\frac{1}{2}\%$$

$$\frac{2}{9} = 22\frac{2}{9}\%$$

$$\frac{1}{10} = 10\%$$

$$\frac{1}{11} = 9\frac{1}{11}\%$$

$$\frac{2}{11} = 18\frac{2}{11}\%$$

$$\frac{1}{12} = 8\frac{1}{3}\%$$

$$\frac{5}{12} = 41\frac{2}{3}\%$$

Q1.A number is increased by x% to get back to the original number , it is to be reduced by ?

Q2.If 35% of a number is 12 less than 50% of that number, then the number is:

A.40   B. 50   C. 60   D. 80

Q3.The income of C is 20% more than B's and income of B is 25% more than A's. Find how much percent is C's income more than A's?

A.150%   B.50%   C.25%   D.35%

Q4.X has twice as much money as that of Y and Y has 50% more money that of Z.If the average money of all of them is 110, then the money which X has is ?

A.55   B.90   C.60   D.180

Q5.An arc contains 23% copper. To get 69% of copper the quantity of the arc required is:

A. 200   B. 250   C. 300   D. 400

Q6.A man losses 20% of his money. After spending 25% of the remainder, he has Rs. 480 left. What is the amount of money he originally had?

A. Rs. 600   B. Rs. 720   C. Rs. 720   D. None of these

Q7.A student multiplied a number by 3/5 instead of 5/3. What is the percentage error in the calculation?

A. 34%   B. 44%   C. 54%   D. 64%

Q8.Find a single increase, if a number is successively increased by 10%,20% and 25%?

A.55%   B. 65%   C. 75%   D. 80%

Q9.Aditya's salary is 80% of Amit's salary and 120% of Rajiv's salary. What is Amit's salary if Rajiv's salary is 30,000?

A. 40000   B. 45000   C. 50000   D. 55000

Q10. In a certain school, 20% of students are below 8 years of age. The number of students above 8 years of age is 2/3 of the number of students of 8 years age which is 48. What is the total number of students in the school?

A. 72   B. 80   C. 120   D. 100

Q11.Two numbers are respectively 20% and 30% less than third number. What is the second number as a percentage of the first?

A. 87.5%   B. 88%   C. 77.5%   D. 87%

Q12.A's salary is 20% less than B's salary. Then B's salary is more than A's salary by:

A. 33 1/ 2 %   B.16 2 /3 %   C. 20%   D. 25%

Q13.If the price of petrol is increased by 20%, by what percentage should the consumption be decreased by the consumer, if the expenditure on petrol remains unchanged?

A. 16 2/3%   B. 62/3%   C. 8%   D. 15%

Q14.The price of an article of Rs. 100. Its price is increased by 10%, then again its price is increased by 10%. How much is increased in total price?

A. 20%   B. 21%   C. 11%   D. 121%

Q15.If the length and breadth of a rectangle field are increased. The area increased by 50%. If the length increased by 20%, by what percentage was breadth increased?

A. 25%   B.30%   C. 20%   D. Data inadequate

Q16.Rajeev buys good worth Rs. 6650. He gets a rebate of 6% on it. After getting the rebate, he pays sales tax @ 10%. Find the amount he will have to pay for the goods.

A.Rs. 6876.10   B.Rs. 6999.20   C.Rs. 6654   D.Rs. 7000

Q17. In an examination it is required to get 35% of the aggregate marks to pass Rishu got 216 marks and declared failed by 5% marks then what was the total marks?

A. 620   B. 720   C. 820   D. 710

Q18. In a class 60% of the students pass in Hindi and 45% pass in Sanskrit. If 25% of them pass in both subjects, what percentage of the students fails in both subjects?

A. 80%   B. 20%   C. 25%   D. 75%

Q19. In an election between two candidates, one got 55% of the total valid votes, 20% of the votes were invalid. If the total number of votes was 7500, the number of valid votes that the other candidate got, was?

A. 2700   B. 2900   C. 3000   D. 3100

Q20.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

Q21. In an exam A got 25% marks more than B .B got 10% less than C and C got 25% more than D.If D got 320 marks , marks obtained by A are ?

Thankyou