Name : Word Problems on Percentages

Chapter : Percentage
Grade : ICSE Grade VIII

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- 1. Out of 8 articles, 2 were damaged. What is the percentage of good articles?
 - (i) 73.00% (ii) 76.00% (iii) 77.00% (iv) 75.00% (v) 74.00%
- 2. Out of 149 articles, 2 were damaged. What is the percentage of good articles?
 - (i) 96.66% (ii) 98.66% (iii) 100.66% (iv) 97.66% (v) 99.66%
- 3. 5.00% of a number is 15.00. What is 3.00% of the number?
 - (i) 8 (ii) 10 (iii) 11 (iv) 9 (v) 7
- 4. 29.00% of a number is 275.50. What is 14.00% of the number?
 - (i) 135 (ii) 134 (iii) 133 (iv) 131 (v) 132
- 5. The cost of an article is ₹10.00. If it is increased by 8.00%, what is the new cost of the article?
 - (i) ₹9.80 (ii) ₹8.80 (iii) ₹10.80 (iv) ₹12.80 (v) ₹11.80
- 6. The cost of an article is ₹100.00. If it is decreased by 3.00%, what is the new cost of the article?
 - (i) ₹99.00 (ii) ₹98.00 (iii) ₹95.00 (iv) ₹97.00 (v) ₹96.00
- 7. The population of a city is 20000. If the rate of increase in population is 5.00% per annum, what is the population after 5 year(s)?
 - (i) 25506 (ii) 25516 (iii) 25526 (iv) 25536 (v) 25546
- 8. The population of a city is 60000. If the rate of decrease in population is 3.00% per annum, what is the population after 3 year(s)?
 - (i) 54740 (ii) 54760 (iii) 54770 (iv) 54780 (v) 54750
- 9. If 10.00% and 4.00% are two successive changes, then the overall change is
 - (i) 12.40% (ii) 15.40% (iii) 16.40% (iv) 14.40% (v) 13.40%
- 10. If 25.00% and 45.00% are two successive changes, then the overall change is
 - (i) 81.25% (ii) 79.25% (iii) 83.25% (iv) 82.25% (v) 80.25%
- The present value of a machine is ₹10000.00. Suppose it depreciates at the rate of 6.00% per annum, what is the value of the machine after 1 year(s)?
 - (i) ₹9398.00 (ii) ₹9400.00 (iii) ₹9402.00 (iv) ₹9399.00 (v) ₹9401.00
- The present value of a machine is ₹3000.00. Suppose it depreciates at the rate of 7.00% per annum, what was the value of the machine 4 year(s) ago?
 - (i) ₹4011.42 (ii) ₹4010.42 (iii) ₹4008.42 (iv) ₹4009.42 (v) ₹4012.42
- 13. If the price of a commodity increases by 9.00%, the reduction in consumption so as not to increase the expenditure is
 - (i) 7.26% (ii) 6.26% (iii) 9.26% (iv) 8.26% (v) 10.26%

14. If the price of a commodity decreases by 4.00%, the increase in consumption so as to match the expenditure is (i) 4.17% (ii) 2.17% (iii) 5.17% (iv) 6.17% (v) 3.17%
15. If 'a' exceeds 'b' by 8.00%, then 'b' is short of 'a' by (i) 7.41% (ii) 9.41% (iii) 5.41% (iv) 8.41% (v) 6.41%
16. If 'a' is short of 'b' by 7.00%, then 'b' exceeds 'a' by (i) 7.53% (ii) 8.53% (iii) 6.53% (iv) 9.53% (v) 5.53%

18. If the price of a commodity increases by r%, the reduction in consumption so as not to increase the expenditure is

19. If the price of a commodity decreases by r%, the increase in consumption so as not to decrease the expenditure is

In a school of 600 students, 360 students are boys. The number of boys who failed the final exam is 190. The

25. In a school of 800 students, 360 students are boys. The number of boys who failed the final exam is 80. The number of girls who failed is 100. The percentage of girls who failed the exam =

26. In a school of 800 students, 560 students are boys. The number of boys who failed the final exam is 200. The number of girls who failed is 180. The percentage of students who passed the exam =

(i) $\left[\frac{r}{100-r} \times 100\right]$ % (ii) $\left[\frac{100-r}{r} \times 100\right]$ % (iii) $\left[\frac{100+r}{r} \times 100\right]$ % (iv) $\left[\frac{r}{100+r} \times 100\right]$ %

(i) $\left[\frac{100 + r}{r} \times 100\right]$ % (ii) $\left[\frac{100 - r}{r} \times 100\right]$ % (iii) $\left[\frac{r}{100 + r} \times 100\right]$ % (iv) $\left[\frac{r}{100 - r} \times 100\right]$ %

(i) $\left[\frac{x}{100 + x} \times 100\right]$ % (ii) $\left[\frac{100 - x}{x} \times 100\right]$ % (iii) $\left[\frac{x}{100 - x} \times 100\right]$ % (iv) $\left[\frac{100 + x}{x} \times 100\right]$ %

(i) $\left[\frac{100 + x}{x} \times 100\right]$ % (ii) $\left[\frac{100 - x}{x} \times 100\right]$ % (iii) $\left[\frac{x}{100 - x} \times 100\right]$ % (iv) $\left[\frac{x}{100 + x} \times 100\right]$ %

17. If the radius of a circle is increased by 3.00%, its area will increase by

(i) 5.09% (ii) 8.09% (iii) 6.09% (iv) 7.09% (v) 4.09%

20. If 'a' exceeds 'b' by x%, then 'b' is short of 'a' by

21. If 'a' is short of 'b' by x%, then 'b' exceeds 'a' by

22. If initial value is V, new value after r% increase is

23. If initial value is V, new value after r% decrease is

(i) $\frac{100 - r}{100} \times V$ (ii) $\frac{100 + r}{r} \times V$ (iii) $\frac{100 + r}{100} \times V$ (iv) $\frac{100 - r}{r} \times V$

(i) $\frac{100 - r}{100} \times V$ (ii) $\frac{100 - r}{r} \times V$ (iii) $\frac{100 + r}{r} \times V$ (iv) $\frac{100 + r}{100} \times V$

(i) 52.78% (ii) 54.78% (iii) 50.78% (iv) 51.78% (v) 53.78%

(i) 20.73% (ii) 24.73% (iii) 21.73% (iv) 23.73% (v) 22.73%

(i) 52.50% (ii) 51.50% (iii) 50.50% (iv) 53.50% (v) 54.50%

number of girls who failed is 130. The percentage of boys who failed the exam =

- 27. In a school of 700 students, 175 students are boys. The number of boys who failed the final exam is 95. The percentage of girls who failed is 65.71%. The number of girls who passed the exam =
 - (i) 177 (ii) 180 (iii) 181 (iv) 183 (v) 179
- 28. In a school of 800 students, 360 students are boys. The number of boys who failed the final exam is 160. The percentage of girls who failed is 54.55%. The percentage of boys who passed the exam =
 - (i) 54.56% (ii) 53.56% (iii) 56.56% (iv) 57.56% (v) 55.56%

Assignment Key							
1) (iv)	2) (ii)	3) (iv)	4) (iii)	5) (iii)	6) (iv)		
7) (iii)	8) (ii)	9) (iv)	10) (i)	11) (ii)	12) (ii)		
13) (iv)	14) (i)	15) (i)	16) (i)	17) (iii)	18) (iv)		
19) (iv)	20) (i)	21) (iii)	22) (iii)	23) (i)	24) (i)		
25) (v)	26) (i)	27) (ii)	28) (v)				

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