Simplification

1) $4\frac{1}{2} - 3\frac{1}{7} + 13\frac{2}{7} - 8\frac{1}{4} = ?$

a) $5\frac{11}{28}$ b) $5\frac{15}{28}$ c) $6\frac{11}{28}$ d) $6\frac{17}{28}$

2) $6666 + 5555 - 9999 - 1111 = ?$

a) 1001 b) 1111 c) 1221 d) 1011

3) $12846 \times 593 + 12846 \times 407 = ?$

a) 12846000 b) 128460000 c) 1284600 d) 24064000

4) $\dfrac{(946+157)^2 + (946-157)^2}{(946 \times 946 + 157 \times 157)} = ?$

a) 789 b) 4 c) 1103 d) 2

5) $\dfrac{(569+163)^2 - (569-163)^2}{569 \times 163} = ?$

a) 2 b) 4 c) 406 d) 732

6) $\dfrac{578 \times 578 \times 578 + 432 \times 432 \times 432}{578 \times 578 - 578 \times 432 + 432 \times 432} = ?$

a) 1000 b) 146 c) 1 d) 1010

7) $65798 \times 125 = ?$

a) 8242570 b) 8224750 c) 8427250 d) 8752240

8) Find the value of $\rightarrow \frac{1}{9}\left[1395^2 - 1398 \times 1392\right]$

a) $\frac{1}{9}$ b) 9 c) 1 d) None of these

9) $7829 \times 999 = ?$

a) 7812171 b) 8711217 c) 7821171 d) None

10) If, $1+\frac{x}{24}=\sqrt{1+\frac{100}{576}}$, then find $x=?$

a) 10 b) 26 c) 50 d) 2

11) If 481K673 is exactly divisible by 9, then find K=?

a) 2 b) 5 c) 6 d) 7

12) If 97215K6 is divisible by 11, then find K=?

a) 3 b) 2 c) 1 d) 5

13) which of the following is divisible by 4 —

a) 2357878 b) 539250 c) 72985734 d) 9135792

14) which of the following is divisible by 8 —

a) 9187672 b) 8253100 c) 2365644 d) 10013572

15) which of the following is divisible by 45 —

a) 181560 b) 331145 c) 202860 d) 2023550

16) If 517K324 is divisible 3, then find K=?

a) 0 b) 1 c) 2 d) 3

17) Express $3.46\overline{7}$ as a vulgar fraction

a) $3\frac{421}{900}$ b) $3\frac{463}{900}$ c) $3\frac{461}{900}$ d) $3\frac{421}{999}$

18) Arrange in ascending order:- $\frac{3}{5}, \frac{4}{7}, \frac{8}{9}, \frac{9}{11}, \frac{13}{15}$

a) $\frac{3}{5}<\frac{4}{7}<\frac{8}{9}<\frac{9}{11}<\frac{13}{15}$ b) $\frac{4}{7}<\frac{3}{5}<\frac{9}{11}<\frac{13}{15}<\frac{8}{9}$

c) $\frac{13}{15}<\frac{9}{11}<\frac{8}{9}<\frac{4}{7}<\frac{3}{5}$ d) $\frac{8}{9}<\frac{13}{15}<\frac{9}{11}<\frac{3}{5}<\frac{4}{7}$

19) Arrange in descending order:- $\frac{350}{363}, \frac{1}{14}, \frac{267}{280}, \frac{5}{18}, \frac{123}{136}$

a) $\frac{350}{363}>\frac{267}{280}>\frac{123}{136}>\frac{5}{18}>\frac{1}{14}$ b) $\frac{1}{14}>\frac{5}{18}>\frac{123}{136}>\frac{267}{280}>\frac{350}{363}$

c) $\frac{267}{280}>\frac{350}{363}>\frac{5}{18}>\frac{123}{136}>\frac{1}{14}$ d) $\frac{123}{136}>\frac{350}{363}>\frac{267}{280}>\frac{1}{14}>\frac{5}{18}$

20) $\dfrac{0.125 - 0.027}{0.5 \times 0.5 + 0.15 + 0.09} = ?$

a) 0.08 b) 0.02 c) 0.8 d) 0.2

21) $(0.\overline{1} + 0.\overline{3} + 0.\overline{32}) = ?$

a) $0.\overline{77}$ b) $0.\overline{82}$ c) $0.\overline{86}$ d) $0.\overline{87}$

22) $999\frac{1}{7} + 999\frac{2}{7} + 999\frac{3}{7} + 999\frac{4}{7} + 999\frac{5}{7} + 999\frac{6}{7} = ?$

a) 2997 b) 5979 c) 5997 d) 5994

23) $999\frac{995}{999} \times 9999 = ?$

a) 9990809 b) 9998996 c) 9998999 d) 9998924

24) Find which of the following is greatest —

a) $(\sqrt{57} - \sqrt{51})$ b) $(\sqrt{98} - \sqrt{92})$ c) $(\sqrt{10} - \sqrt{4})$ d) $(\sqrt{73} - \sqrt{67})$

25) Find which of the following is least —

a) $\sqrt{2}$ b) $\sqrt[4]{5}$ c) $\sqrt[6]{7}$ d) $\sqrt[3]{3}$

26) Find the greatest among the following numbers :—

a) 3^{40} b) 7^{20} c) 4^{35} d) 5^{30}