



Top 20 Questions Simplification & Approximation

Direction(1-10): What value will come in place of the question mark (?) in the following question?

Q1. $2578 - 3361 + 1918 = ? \times 20 - 23 \times 52$

- A. 132.45
- B. 161.65
- C. 231.35
- D. 116.55
- E. None of these

Q2. $5\% \text{ of } 420 \times ?\% \text{ of } 150 = 627 - 375$

- A. 12
- B. 18
- C. 8
- D. 5
- E. None of these

Q3. $32\% \text{ of } 275 - ?\% \text{ of } 300 = \sqrt{6.25} - (2.4)^2$

- A. 32.64
- B. 30.42
- C. 23.46
- D. 31.54
- E. None of these

Q4. $7438 - 4154 + 1284 + \sqrt{1764} = ? \times 50$

- A. 91.3
- B. 92.2
- C. 89.2
- D. 93.3
- E. None of these

Q5. $\sqrt{11449} \times \sqrt{6241} - (54)^2 = \sqrt{?} + (74)^2$

- A. 7321
- B. 3721
- C. 3969
- D. 3481
- E. None of these

Q6. $346.3 \times 29.5 - 3861.1 = ? + 3883.3$

- A. 3416.55
- B. 2431.35
- C. 2471.45
- D. 4312.65
- E. None of these

Q7. $(2525 \times 2.5 \div 50) \times 7 = ? + 1.6 \times 24.2$

- A. 819.43
- B. 883.75
- C. 845.03
- D. 955.23
- E. None of these

Q8. $(4.9 \times 4.6 + 4.46) \div 3 = (3)^?$

- A. 3
- B. 4
- C. 1
- D. 2
- E. None of these

Q9. $30\% \text{ of } 262 - 2\% \text{ of } 985 + ? = 20\% \text{ of } 423$

- A. 26.7
- B. 25.7
- C. 32.7
- D. 29.7
- E. None of these

Q10. $(5555 \div 50) + (774 \div 30) + (3991 \div 26) = ?$

- A. 310.4
- B. 290.4
- C. 295.6
- D. 285.6
- E. None of these

Direction(11-20): What approximate value will come in place of the question mark (?) in the following question? (You are not expected to calculate the exact value)

11. $(497.07 + 117.94 - ?) \div 6.05 = 99.98$

- A. 15
- B. 14
- C. 22
- D. 28
- E. 19

12. $13.09 + 36.02 \times 7.01 + \sqrt{226} = ?$

- A. 280
- B. 340
- C. 240
- D. 550
- E. 120



13. 23.91% of $349.97 \times \frac{3}{1.98} = ?$

- A. 166
- B. 193
- C. 296
- D. 356
- E. 126

14. $\sqrt{(4.98)^2 \times (7.01)^2 + (11.81)^2} + 5.01 = ?$
 $+ (124)^{1/3}$

- A. 36
- B. 37
- C. 42
- D. 45
- E. 32

15. $5423.89 \div 5.94 + 19.88 = ? \times 13.9$

- A. 32
- B. 69
- C. 36
- D. 66
- E. 87

16. $(2 \times 7.91 \div 3.71) \times 4.01^2 \div 5.01 = ?$

- A. 13
- B. 16
- C. 8
- D. 10
- E. 5

17. 21% of 23.71% of $\frac{1}{4}$ th of $14999 = ?$

- A. 160
- B. 120
- C. 190
- D. 210
- E. 240

18. 51.81% of $? - 49.21 = 289.11$

- A. 762
- B. 623
- C. 728
- D. 650
- E. 735

19. $\frac{6}{11}$ of 77.09% of $399 = ?$

- A. 160
- B. 258
- C. 137
- D. 178

E. 168

20. $\frac{5.96}{21.05} \times \frac{7.01}{4.98} \times 54.99 = ?$

- A. 22
- B. 15
- C. 35
- D. 18
- E. 28



Answer 1: D

Solution:

$$\begin{aligned}2578 - 3361 + 1918 &= ? \times 20 - 23 \times 52 \\ 1135 &= ? \times 20 - 1196 \\ ? \times 20 &= 1135 + 1196 \\ ? &= 2331/20 = 116.55\end{aligned}$$

Answer 2: C

$$\begin{aligned}\text{Solution: } 5\% \text{ of } 420 \times ?\% \text{ of } 150 &= 627 - 375 \\ 21 \times ?\% \text{ of } 150 &= 252 \\ ?\% \text{ of } 150 &= 252/21 = 12 \\ ? &= 12 \times 100/150 = \mathbf{8}\end{aligned}$$

Answer 3: B

Solution:

$$\begin{aligned}32\% \text{ of } 275 - ?\% \text{ of } 400 &= \sqrt{6.25} - (2.4)^2 \\ 88 - ?\% \text{ of } 400 &= 2.5 - 5.76 \\ ?\% \text{ of } 400 &= 88 - 2.5 + 5.76 = 91.26 \\ ? &= 91.26 \times 100/300 = \mathbf{30.42}\end{aligned}$$

Answer 4: B

Solution:

$$\begin{aligned}7437 - 4153 + 1284 + \sqrt{1764} &= ? \times 50 \\ 4568 + 42 &= ? \times 50 \\ 4610/50 &= ? \\ ? &= 92.2\end{aligned}$$

Answer 5: B

Solution:

$$\begin{aligned}\sqrt{11449} \times \sqrt{6241} - (54)^2 &= \sqrt{?} + (74)^2 \\ 107 \times 79 - 2916 &= \sqrt{?} + 5476 \\ 8453 - 2916 - 5476 &= \sqrt{?} \\ 61 &= \sqrt{?} \\ ? &= 61^2 = 3721\end{aligned}$$

Answer 6: C

Solution:

$$\begin{aligned}346.3 \times 29.5 - 3861.1 &= ? + 3883.3 \\ 10215.85 - 3861.1 - 3883.3 &= ? \\ ? &= 2471.45\end{aligned}$$

Answer 7: C

$$\begin{aligned}\text{Solution: } (2525 \times 2.5 \div 50) \times 7 &= ? + 3.2 \times 12.1 \\ (126.25) \times 7 &= ? + 38.72 \\ ? &= 883.75 - 38.72 = 845.03\end{aligned}$$

Answer 8: D

Solution:

$$\begin{aligned}(4.9 \times 4.6 + 4.46) \div 3 &= (3)^? \\ (27) \div 3 &= (3)^? \\ ? &= 2\end{aligned}$$

Answer 9: B

$$\begin{aligned}\text{Solution: } 78.6 - 19.7 + ? &= 84.6 \\ ? &= 84.6 - 58.9 \\ ? &= 25.7\end{aligned}$$

Answer 10: B

Solution:

$$\begin{aligned}(5555 \div 50) + (774 \div 30) + (3991 \div 26) &= ? \\ 111.1 + 25.8 + 153.5 &= ? \\ ? &= 290.4\end{aligned}$$

Ans 11: (A).

Solution:

$$\begin{aligned}(497 + 118 - ?) \div 6 &= 100 \\ 615 - ? &= 600 \\ ? &= 15\end{aligned}$$

Ans 12: (C).

Solution:

$$\begin{aligned}? &= 13 + 36 \times 7 + \sqrt{225} \\ ? &= 13 + 252 + 15 = 280\end{aligned}$$

Ans 13: (E).

Solution:

$$\begin{aligned}? &= \frac{24}{100} \times 350 \times \frac{3}{2} \\ ? &= 126\end{aligned}$$

Ans 14: (B).

Solution:

$$\begin{aligned}? &= \sqrt{(5)^2 \times (7)^2 + (12)^2} \\ ? &= \sqrt{25 \times 49 + 144} = \sqrt{1369} = 37\end{aligned}$$

Ans 15: (D).

Solution:

$$\begin{aligned}5424 \div 6 + 20 &= ? \times 14 \\ 904 + 20 &= ? \times 14 \\ ? &= \frac{924}{14} = 66\end{aligned}$$

Ans 16: (A).

Solution:

$$\begin{aligned}? &= (2 \times 8 \div 4) \times 16 \div 5 \\ ? &= 12.8 \approx 13\end{aligned}$$



Ans 17: (C).

Solution:

$$? = \frac{21}{100} \times \frac{24}{100} \times \frac{1^{\text{th}}}{4} \times 15000$$

$$? = 21 \times 3 \times 34 = 190$$

Ans 18: (D).

Solution:

$$\frac{52}{100} \times ? - 49 = 289$$

$$\frac{52}{100} \times ? = 338$$

$$? = 650$$

Ans 19: (E).

Solution:

$$? = \frac{6}{11} \times \frac{77}{100} \times 399$$

$$? = 6 \times 7 \times 4 = 168$$

Ans 20: (A)

Solution:

$$? = \frac{5.96}{21.05} \times \frac{7.01}{4.98} \times 54.99$$

$$? = \frac{6}{21} \times \frac{7}{5} \times 55$$

$$? = 22$$