

BHARAT SCHOOL OF BANKING

SIMPLIFICATION

Directions (1-15): What will come in place of question-mark (?) in the following question?

Q1. $\frac{5^2 \times 14 + 1450}{5} = 1998 \div ?$

- (a) 5.55
- (b) 55.5
- (c) 50.5
- (d) 5.05
- (e) 50.05

Q2. $1\frac{1}{3} + 2\frac{1}{6} - 3\frac{1}{9} = 1 \div ?$

- (a) $2\frac{4}{7}$
- (b) $5\frac{2}{7}$
- (c) $2\frac{1}{3}$
- (d) $3\frac{1}{3}$
- (e) $3\frac{1}{7}$

Q3. $\frac{9}{13}$ of 221 + $1\frac{4}{9}$ of 378 = 241 + ?

- (a) 450
- (b) 410
- (c) 458
- (d) 350
- (e) 358

Q4. $(4444 \div 40) + (645 \div 25) + (3991 \div 26) = ?$

- (a) 280.4
- (b) 290.4

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- (c) 295.4
- (d) 285.4
- (e) None of these

Q5. $[(15.5 \times 28) \div 16 - 1230 \div 240] = ? \times 5$

- (a) 4.4
- (b) 4
- (c) 5
- (d) 4.2
- (e) 2.4

Q6. $37.5 \div \left[\frac{1}{2} \text{ of } (24 + 33) - 13\frac{1}{2} \right] = ?$

- (a) 2.75
- (b) 2.5
- (c) 1.75
- (d) 2.28
- (e) 1.5

Q7. $4\frac{1}{2} - 2\frac{5}{6} = ? - 1\frac{7}{12}$

- (a) $3\frac{1}{4}$
- (b) $3\frac{5}{12}$
- (c) $2\frac{7}{12}$
- (d) $3\frac{3}{4}$
- (e) None of these

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Q8. $5\frac{17}{37} \times 4\frac{51}{52} \times 11\frac{1}{7} + 2\frac{3}{4} = ?$

- (a) 303.25
- (b) 305.75
- (c) $303\frac{3}{4}$
- (d) $305\frac{1}{4}$
- (e) None of these

Q9. $216^{1/3} \times 26^4 \times 39^4 \div [12^4 \times 3 \times 2^{-3}] = 13^?$

- (a) 8
- (b) 12
- (c) 4
- (d) 10
- (e) 16

Q10. $[(144)^2 \div 48 \times ?] \div 22 = 216$

- (a) 23
- (b) 16
- (c) 11
- (d) 32
- (e) None of these

Answer

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S1. Ans.(a)

Sol. Here, $\frac{5^2 \times 14 + 1450}{5} = 1998 \div x$

We apply the BODMAS rule to solve this expression.

$$\Rightarrow \frac{350 + 1450}{5} = 1998 \div x$$

$$\Rightarrow \frac{1800}{5} = 1998 \div x$$

$$x = 5.55$$

S2. Ans.(a)

Sol. Here, $1\frac{1}{3} + 2\frac{1}{6} - 3\frac{1}{9} = 1 \div x$

$$\Rightarrow \frac{4}{3} + \frac{13}{6} - \frac{28}{9} = 1 \div x$$

$$\Rightarrow \frac{24 + 39 - 56}{18} = 1 \div x$$

$$\Rightarrow \frac{7}{18} = 1 \div x$$

$$\Rightarrow x = \frac{18}{7} = 2\frac{4}{7}$$

S3. Ans.(c)

Sol. Here,

$$\frac{9}{13} \text{ of } 221 + 1\frac{4}{9} \text{ of } 378 = 241 + ?$$

$$\Rightarrow 9 \times 17 + 13 \times 42 = 241 + ?$$

$$\Rightarrow 153 + 546 = 241 + ?$$

$$\Rightarrow x = 458$$

S4. Ans.(b)

Sol. Here, we apply the BODMAS rule as follows

$$(4444 \div 40) + (645 \div 25) + (3991 \div 26) = ?$$

$$= 111.1 + 25.8 + 153.5 = 290.4$$

S5. Ans.(a)

Sol. Here,

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$$[(15.5 \times 28) \div 16 - 1230 \div 240] = ? \times 5$$

$$\Rightarrow 434 \div 16 - 5.125 = ? \times 5$$

$$\Rightarrow 27.125 - 5.125 = ? \times 5$$

$$\Rightarrow 22 = ? \times 5$$

$$\Rightarrow ? = 22/5$$

$$= 4.4$$

S6. Ans.(b)

Sol. Here,

$$37.5 \div \left[\frac{1}{2} \text{ of } (24 + 33) - 13 \frac{1}{2} \right] = ?$$

$$\Rightarrow 37.5 \div \left[\frac{1}{2} \times 57 - \frac{27}{2} \right]$$

$$\Rightarrow 37.5 \div \left[\frac{57 - 27}{2} \right]$$

$$\Rightarrow 37.5 \div 15$$

$$\Rightarrow ? = 2.5$$

S7. Ans.(a)

Sol. Here, we add the integral and fractional part separately and follow the order of BODMAS.

$$\text{So, } 4 + \frac{1}{2} - \left(2 + \frac{5}{6} \right) + 1 + \frac{7}{12} = ?$$

$$\Rightarrow (4 - 2 + 1) + \left(\frac{-5}{6} + \frac{7}{12} + \frac{1}{2} \right) = ?$$

$$\Rightarrow ? = 3 + \left(\frac{-10 + 7 + 6}{12} \right) = 3 + \frac{1}{4} = \frac{13}{4}$$

$$= 3 \frac{1}{4}$$

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S8. Ans.(b)

$$\begin{aligned}\text{Sol. Here, } & 5\frac{17}{37} \times 4\frac{51}{52} \times 11\frac{1}{7} + 2\frac{3}{4} \\ & = \frac{202}{37} \times \frac{259}{52} \times \frac{78}{7} + \frac{11}{4}\end{aligned}$$

Here, we allow the order of BODMAS

$$\begin{aligned} ? & = \frac{202 \times 7}{52} \times \frac{78}{7} + \frac{11}{4} \\ \Rightarrow ? & = \frac{101 \times 6}{2} + \frac{11}{4} \\ ? & = \frac{1212 + 11}{4} = \frac{1223}{4} \\ & = 305.75 \end{aligned}$$

S9. Ans.(a)

Sol. Here,

$$\begin{aligned} \frac{(216)^{1/3} \times 26^4 \times (39)^4}{(12)^4 \times 3 \times 2^{-3}} & = 13^x \\ \Rightarrow \frac{6 \times 2^4 \times 3^4 \times 13^8}{(2 \times 6)^4 \times 3 \times 2^{-3}} & = 13^x \\ \Rightarrow \frac{6 \times 6^4 \times 13^8}{6 \times 6^4} & = 13^x \\ \Rightarrow 13^8 & = 13^x \Rightarrow x = 8 \end{aligned}$$

S10. Ans.(c)

$$\text{Sol. Here, } [(144)^2 \div 48 \times ?] \div 22 = 216$$

We follow the BODMAS rule,

$$\begin{aligned}\text{So, } & \left[\frac{144 \times 144}{48} \times ? \right] \div 22 = 216 \\ \Rightarrow & (432 \times ?) \div 22 = 216 \\ \Rightarrow & (432 \times ?) = 216 \times 22 \\ \Rightarrow ? & = \frac{216 \times 22}{432} = 11\end{aligned}$$