

Order of Operations

Solve the following problems. Make sure to apply the Order of Operations rule and show all your work, including intermediary steps.

1. $3 + 5 \times 8$

$$\begin{aligned} & 3 + 5 \times 8 \\ & = 3 + 40 \\ & = 43 \end{aligned} \quad A: 43$$

2. $3 + 6 \div 2$

$$\begin{aligned} & 3 + 6 \div 2 \\ & = 3 + 3 \\ & = 6 \end{aligned} \quad A: 6$$

3. $3 + 4 \times 9 - 8 \div 2$

$$\begin{aligned} & 3 + 4 \times 9 - 8 \div 2 \\ & = 3 + 36 - 4 \\ & = 39 - 4 \\ & = 35 \end{aligned} \quad A: 35$$

4. $1 + 21 \times 5 - 8 \div 2 + 15$

$$\begin{aligned}
 & 1 + 21 \times 5 - 8 \div 2 + 5 \\
 & = 1 + 105 - 4 + 5 \\
 & = 106 - 4 + 5 \\
 & = 110 + 5 \\
 & = 115
 \end{aligned}$$

A: 115

5. $18 - 2 \times 3 + 4 \times 9 - 6 \div 2$

$$\begin{aligned}
 & 18 - 2 \times 3 + 4 \times 9 - 6 \div 2 \\
 & = 18 - 6 + 36 - 3 \\
 & = 12 + 36 - 3 \\
 & = 48 - 3 \\
 & = 45
 \end{aligned}$$

A: 45

6. $25 - 6 \div 2 - 8 \div 4 + 6 \div 3$

$$\begin{aligned}
& 25 - 6 \div 2 - 8 \div 4 + 6 \div 3 \\
& = 25 - 3 - 2 + 2 \\
& = 22 - 2 + 2 \\
& = 20 + 2 \\
& = 22
\end{aligned}$$

A: 22

7. $233 + 4 \times 20 - 9 \div 3 - 20$

$$\begin{aligned}
& 233 + 4 \times 20 - 9 \div 3 - 20 \\
& = 233 + 80 - 3 - 20 \\
& = 313 - 3 - 20 \\
& = 310 - 20 \\
& = 290
\end{aligned}$$

A: 290

8. $150 - 80 \div (4 - 3) + 2 \times 8$

$$\begin{aligned}
& 150 - 80 \div (4 - 3) + 2 \times 8 \\
& = 150 - 80 \div 1 + 2 \times 8 \\
& = 150 - 80 + 16 \\
& = 70 + 16 \\
& = 86
\end{aligned}$$

A: 86

9. $1515 - 62 \div 31 - 15 \times 8 + 7 \times (10 \div 2)$

$$\begin{aligned}
& 1515 - 62 \div 31 - 15 \times 8 + 7 \times (10 \div 2) \\
& = 1515 - 62 \div 31 - 15 \times 8 + 7(5) \\
& = 1515 - 62 \div 31 - 15 \times 8 + 35 \\
& = 1515 - 2 - 120 + 35 \\
& = 1513 - 120 + 35 \\
& = 1393 + 35
\end{aligned}$$

A: 1418

$$= 1418$$