

Mathematical Operations



B = Brackets.

M = Multiplication

O = Order, powers, roots. A = Addition

D = Division ÷ S = Subtraction.

Q1
≡

$$\begin{aligned}
 \text{Ans: } & 27 > 81 \text{ } \$ \text{ } g < 6 \\
 \Rightarrow & 27 + 81 \stackrel{\circ}{\div} g - 6 \\
 \Rightarrow & 27 + g - 6 \\
 \Rightarrow & 36 - 6 \Rightarrow 30.
 \end{aligned}$$

a) None of above. ans

Q2

$$\begin{aligned}
 \text{Ans } & 16 \times 3 + 5 - 2 \stackrel{\wedge}{\div} 4 \\
 \Rightarrow & 16 + 3 - 5 \stackrel{\circ}{\div} 2 \times 4 \\
 \Rightarrow & 16 + 3 - 2 \cdot 5 \times 4 \\
 \Rightarrow & 16 + 3 - 10 \\
 \Rightarrow & 19 - 10 \Rightarrow \cancel{19}. \Rightarrow 9.
 \end{aligned}$$

b) 9 ans

Q3

$$\begin{aligned}
 \text{Ans } & 15 - 3 + 10 \times 5 \stackrel{\wedge}{\div} 5 \\
 \Rightarrow & 15 \times 3 \cancel{\oplus} 10 \stackrel{\circ}{\div} 5 + 5 \\
 \Rightarrow & 15 \times 3 - 2 + 5 \\
 \Rightarrow & 45 - 2 + 5 \\
 \Rightarrow & 45 + 3 \\
 = & 48
 \end{aligned}$$

c) 48 ans

Q4

AN: $\frac{(36 \times 4) - 8 \times 4}{4 + 8 \times 2 + 16 \div 1}$

 $\Rightarrow \frac{(36 - 4) \div 8 - 4}{4 \times 8 - 2 \times 16 + 1}$
 $\Rightarrow \frac{(32 \div 8 - 4)}{32 - 32 + 1}$
 $\Rightarrow \frac{4 - 4}{0 + 1} = 0$.

a) 0 any

Q5

AN $30 \times 2 \varphi 3 \times 6 - 5$

 $\Rightarrow 30 \div 2 + 3 \times 6 - 5$
 $\Rightarrow 15 + 18 - 5$
 $\Rightarrow 33 - 5$
 $\Rightarrow 28$

b) 28 any

Q6

AN 8 when 12 will be even 2 come to.

 $\Rightarrow 8 \times 12 + 16 \div 2 - 10$
 $\Rightarrow 8 \times 12 + 8 - 10$
 $\Rightarrow 96 + 8 - 10$
 $\Rightarrow 104 - 10$
 $\Rightarrow 94$

b) 94 any

Q7.

$$\begin{aligned} \text{AN} & (10 \times 4) A (4 \times 4) B 6 \\ \Rightarrow & (10 \times 4) + (4 \times 4) - 6 \\ \Rightarrow & 40 + 16 - 6 \\ = & 50 \end{aligned}$$

b) 50 am

eg $(cd + ef) \times bc$ equal to.

$\rightarrow a \rightarrow 0, b \rightarrow 1, c \rightarrow 2, d \rightarrow 3, e \rightarrow 4, f \rightarrow 5, g \rightarrow 6,$
 $h \rightarrow 7, i \rightarrow 8, j \rightarrow 9, l \rightarrow 0.$

then,

$$\begin{aligned} & \Rightarrow (cd + ef) \times bc \\ & \Rightarrow (23 + 45) \times 12 \\ & \Rightarrow 68 \times 12 \end{aligned} \quad \begin{array}{r} 68 \\ \times 12 \\ \hline 136 \\ + 68 \\ \hline 816 \end{array}$$

b) 816 am

eg $bae + bfa \times d$ is equal to.

$$\begin{aligned} & \Rightarrow 105 \div 15 \times 3 \\ & \Rightarrow 7 \times 3 = 21. \\ & \Rightarrow \text{c.b.} \end{aligned}$$

b) c.b. am

Q10. $d \times f + (bf - d) \times d$ is equal to.

$$\begin{aligned} & \Rightarrow 82 \times 5 - (15 - 3) \times 3 \\ & \Rightarrow 82 \times 5 - (12) \times 3 \\ & \Rightarrow 160 - 36 \end{aligned} \quad \begin{array}{r} 160 \\ - 36 \\ \hline 124 \end{array}$$

$$\Rightarrow 124$$

$$\Rightarrow bce$$

c) bce am

147
 + 56
 183
 - 14
188

Q11 bee + pg - (c x h / be) is equal to.

$$\rightarrow 144 + 56 - (20 \times 7 / 14)$$

$$\rightarrow 144 + 56 - (10)$$

$$\rightarrow 200 - 10$$

$$\rightarrow \cancel{190}$$

$$\rightarrow bja.$$

d) bja

Q12

$$\text{Ans} \quad a) 4x5 + 9 - 3 \div 4 = 15$$

$$\rightarrow 4 + 5 \times 9 \div 3 - 4$$

$$\rightarrow 4 + 5 \times 3 - 4$$

$$\rightarrow 4 + 15 - 4$$

$$= 15 \quad \text{W.}$$

Q13

$$\text{Ans} \quad d) 6 \div 20 \times 12 + 7 - 1 = 70$$

$$\Rightarrow 6 - 20 + 12 \times 7 \div 1$$

$$\Rightarrow 6 - 20 + 84$$

$$\Rightarrow 6 + 84$$

$$\Rightarrow 70. \quad \text{W.}$$

Q14

$$\text{Ans} \quad d) 2 \sqrt{5} \leftarrow 6 \rightarrow 2 \rightarrow 6$$

$$\Rightarrow 2 * 5 - 6 + 2 = 6$$

$$10 - 6 + 2$$

$$\Rightarrow 4 + 2$$

$$\Rightarrow 6 \quad \underline{\text{is}} \quad \text{correct}$$

q15

$$\underline{\text{Any}} \quad (c) \quad 5 > 2 \times 1 - 3 > 4 < 1$$

$$\rightarrow 5 \times 2 > 1 = 3 \times 4 - 1$$

$$\rightarrow 10 + 1 = 12 - 1$$

$$\Rightarrow 11 = 11 \quad \text{W.C. correct}$$

q16

$$\underline{\text{Any}} \quad 15 \times 5 \neq 8 \times 4 \quad B \quad 6 \times 3$$

$$\rightarrow 15 \div 5 < 8 \div 4 + 6 \div 3$$

$$\rightarrow 3 < 2 + 2$$

$$\rightarrow 3 < 4 \quad \text{W.C. correct.}$$

q17

$$\underline{\text{Any}} \quad 15 \times 5 \neq 8 \times 4 \quad B \quad 6 \times 3$$

$$\rightarrow 15 \div 5 < 8 \div 4 + 6 \div 3$$

$$\rightarrow 3 < 2 + 2 \rightarrow 3 < 4$$

correct