

1. $3 - \left\{ \frac{1}{2} - 2 - \left(-\frac{2}{5} \right) \div 2 \right\} \times 5 - \frac{3}{2}$ 을 계산하면?

① 8

② 13

③ $-\frac{13}{10}$

④ $\frac{19}{2}$

⑤ $-\frac{13}{5}$

해설

$$\begin{aligned} & 3 - \left\{ \frac{1}{2} - 2 - \left(-\frac{2}{5} \right) \div 2 \right\} \times 5 - \frac{3}{2} \\ &= 3 - \left\{ \frac{1}{2} - 2 - \left(-\frac{2}{5} \right) \times \frac{1}{2} \right\} \times 5 - \frac{3}{2} \\ &= 3 - \left(\frac{1}{2} - 2 + \frac{1}{5} \right) \times 5 - \frac{3}{2} \\ &= 3 - \left(-\frac{13}{10} \right) \times 5 - \frac{3}{2} \\ &= 3 + \frac{13}{2} - \frac{3}{2} = 3 + 5 = 8 \end{aligned}$$

2. $4 \div \left\{ 3 - 2 \times \left(-\frac{1}{4} \right) \right\} - \frac{3}{5}$ 을 계산하여라.

▶ 답 :

▷ 정답 : $\frac{19}{35}$

해설

$$\begin{aligned} 4 \div \left\{ 3 - 2 \times \left(-\frac{1}{4} \right) \right\} - \frac{3}{5} &= 4 \div \left(3 + \frac{1}{2} \right) - \frac{3}{5} \\ &= 4 \times \frac{2}{7} - \frac{3}{5} = \frac{8}{7} - \frac{3}{5} \\ &= \frac{8 \times 5 - 3 \times 7}{35} = \frac{19}{35} \end{aligned}$$

3. 다음을 계산하여라.

$$\left\{ \left(-\frac{2}{3} \right)^3 \div \left| -\frac{16}{9} \right| + \frac{2}{3} \right\} \times (-2^2) - 7$$

▶ 답 :

▷ 정답 : -9

해설

$$\begin{aligned} & \left\{ \left(-\frac{2}{3} \right)^3 \div \left| -\frac{16}{9} \right| + \frac{2}{3} \right\} \times (-2^2) - 7 \\ &= \left\{ \left(-\frac{8}{27} \right) \div \frac{16}{9} + \frac{2}{3} \right\} \times (-4) - 7 \\ &= \left\{ \left(-\frac{8}{27} \right) \times \frac{9}{16} + \frac{2}{3} \right\} \times (-4) - 7 \\ &= \left(-\frac{1}{6} + \frac{2}{3} \right) \times (-4) - 7 \\ &= \frac{1}{2} \times (-4) - 7 = -9 \end{aligned}$$

4. 다음 식을 계산하여라.

$$(-12) \times \left[\frac{1}{3} - \left\{ \frac{3}{4} \div \left(-\frac{9}{16} \right) + 2 \right\} \right]$$

▶ 답:

▷ 정답: 4 또는 +4

해설

$$\begin{aligned} & (-12) \times \left[\frac{1}{3} - \left\{ \frac{3}{4} \div \left(-\frac{9}{16} \right) + 2 \right\} \right] \\ &= (-12) \times \left[\frac{1}{3} - \left\{ \frac{3}{4} \times \left(-\frac{16}{9} \right) + 2 \right\} \right] \\ &= (-12) \times \left\{ \frac{1}{3} - \left(-\frac{4}{3} + 2 \right) \right\} \\ &= (-12) \times \left(\frac{1}{3} - \frac{2}{3} \right) = (-12) \times \left(-\frac{1}{3} \right) = 4 \end{aligned}$$

5. 다음 식을 아래 순서에 따라 계산할 때, □ 안에 알맞은 수를 써넣어라.

$$\begin{aligned}
 & -8 - \left\{ \frac{3}{4} \div \left(\frac{3}{2} - \frac{1}{4} \right) - 1 \right\} \times (-3) = -8 - \left\{ \frac{3}{4} \div \square - 1 \right\} \times (-3) \\
 & \quad \quad \quad \text{①} \\
 & \quad \quad \quad \text{②} \quad \quad \quad \text{③} \\
 & \quad \quad \quad \text{④} \\
 & \quad \quad \quad \text{⑤} \\
 & = -8 - (\square - 1) \times (-3) \\
 & = -8 - \square \times (-3) \\
 & = -8 - \square \\
 & = \square
 \end{aligned}$$

▶ 답 :

▶ 답 :

▶ 답 :

▶ 답 :

▶ 답 :

▷ 정답 : $\frac{5}{4}$

▷ 정답 : $\frac{3}{5}$

▷ 정답 : $-\frac{2}{5}$

▷ 정답 : $\frac{6}{5}$

▷ 정답 : $-\frac{46}{5}$

해설

$$\textcircled{1} \quad \frac{3}{2} - \frac{1}{4} = \frac{6}{4} - \frac{1}{4} = \frac{5}{4}$$

$$\textcircled{2} \quad \frac{3}{4} \div \frac{5}{4} = \frac{3}{4} \times \frac{4}{5} = \frac{3}{5}$$

$$\textcircled{3} \quad \frac{3}{5} - 1 = \frac{3}{5} - \frac{5}{5} = -\frac{2}{5}$$

$$\textcircled{4} \quad \left(-\frac{2}{5} \right) \times (-3) = \frac{6}{5}$$

$$\textcircled{5} \quad (-8) - \frac{6}{5} = -\frac{40}{5} - \frac{6}{5} = -\frac{46}{5}$$

6. $A = (-2)^2 \times (-1)^3 \div \frac{8}{3} + 1$, $B = -3^2 \div \frac{18}{5} \times (-1.4)$ 일 때, $A + B$ 의 값을 구하라.

① -0.5

② 0.5

③ -3.5

④ 3.5

⑤ 3

해설

$$A = 4 \times (-1) \times \frac{3}{8} + 1$$

$$= (-4) \times \frac{3}{8} + 1$$

$$= \left(-\frac{3}{2}\right) + 1$$

$$= -\frac{1}{2}$$

$$B = -9 \times \frac{5}{18} \times (-1.4) = \left(-\frac{5}{2}\right) \times (-1.4) = 3.5$$

$$\therefore A + B = -\frac{1}{2} + 3.5 = -0.5 + 3.5 = 3$$

7. 다음을 계산하면?

$$2 - \left[\left\{ \left(-\frac{3}{2} \right)^2 - 8 \div \frac{4}{3} \right\} - (-5) \right]$$

① $\frac{1}{4}$

② $\frac{1}{2}$

③ $\frac{3}{4}$

④ 1

⑤ $\frac{5}{4}$

해설

$$\begin{aligned} & 2 - \left[\left\{ \left(-\frac{3}{2} \right)^2 - 8 \div \frac{4}{3} \right\} - (-5) \right] \\ &= 2 - \left[\left\{ \left(+\frac{9}{4} \right) - 8 \div \frac{4}{3} \right\} - (-5) \right] \\ &= 2 - \left[\left\{ \left(+\frac{9}{4} \right) - 8 \times \frac{3}{4} \right\} - (-5) \right] \\ &= 2 - \left[\left\{ \left(+\frac{9}{4} \right) - 6 \right\} - (-5) \right] \\ &= 2 - \left\{ \left(-\frac{15}{4} \right) + (+5) \right\} \\ &= 2 - \frac{5}{4} \\ &= \frac{3}{4} \end{aligned}$$

8. 다음을 계산하시오.

$$\left[\frac{2}{3} - \left\{ \left(-\frac{2}{3} \right) \div \left(-\frac{4}{7} \right) - 1 \right\} \times 2 \right] \times (-7)$$

▶ 답:

▷ 정답: $-\frac{7}{3}$

해설

$$\begin{aligned} & \left[\frac{2}{3} - \left\{ \left(-\frac{2}{3} \right) \div \left(-\frac{4}{7} \right) - 1 \right\} \times 2 \right] \times (-7) \\ &= \left[\frac{2}{3} - \left\{ \left(-\frac{2}{3} \right) \times \left(-\frac{7}{4} \right) - 1 \right\} \times 2 \right] \times (-7) \\ &= \left\{ \frac{2}{3} - \left(\frac{7}{6} - 1 \right) \times 2 \right\} \times (-7) \\ &= \left(\frac{2}{3} - \frac{1}{3} \right) \times (-7) \\ &= \frac{1}{3} \times (-7) = -\frac{7}{3} \end{aligned}$$

9. $\frac{1}{3} \times \{-2 + 3 \times (-1)^3\} + \frac{3}{2}$ 을 계산하면?

① $-\frac{1}{6}$

② $-\frac{1}{2}$

③ $\frac{5}{6}$

④ $\frac{3}{2}$

⑤ $-\frac{5}{3}$

해설

$$\begin{aligned}(\text{준식}) &= \frac{1}{3} \times \{-2 + 3 \times (-1)\} + \frac{3}{2} \\&= \frac{1}{3} \times (-2 - 3) + \frac{3}{2} \\&= -\frac{5}{3} + \frac{3}{2} \\&= \frac{-10 + 9}{6} \\&= -\frac{1}{6}\end{aligned}$$

10. 다음 식을 계산하여라.

$$-3^2 + \{(-2)^3 + (-4) \times (-7)\}$$

▶ 답 :

▷ 정답 : 11 또는 +11

해설

$$\begin{aligned}(\text{준식}) &= -9 + \{-8 + (-4) \times (-7)\} \\ &= -9 + (-8 + 28) \\ &= -9 + 20 = 11\end{aligned}$$

11. 다음 식을 계산하여라.

$$9 - [-2^2 - (+6) \times \{-4 + (-1)^2\} \div 3]$$

▶ 답 :

▷ 정답 : 7

해설

$$\begin{aligned}(\text{준식}) &= 9 - [-4 - (+6) \times \{-4 + 1\} \div 3] \\&= 9 - \{-4 - (+6) \times (-3) \div 3\} \\&= 9 - \{(-4) - (-6)\} = 9 - 2 = 7\end{aligned}$$

12. 다음을 계산하여라.

$$-2 + \left\{ 1 - \left(-\frac{1}{2} \right)^2 \times \frac{9}{4} \right\} \div \left(-\frac{1}{4} \right)$$

① -4

② 4

③ $-\frac{15}{4}$

④ $\frac{15}{4}$

⑤ -3

해설

$$\begin{aligned} & -2 + \left\{ 1 - \left(-\frac{1}{2} \right)^2 \times \frac{9}{4} \right\} \div \left(-\frac{1}{4} \right) \\ &= -2 + \left\{ 1 - \left(+\frac{1}{4} \right) \times \frac{9}{4} \right\} \times (-4) \\ &= -2 + \frac{7}{16} \times (-4) \\ &= -2 + \left(-\frac{7}{4} \right) \\ &= -\frac{15}{4} \end{aligned}$$

13. 다음을 계산하여라.

$$-6 + \left\{ \left| \frac{5}{4} - \frac{4}{3} \right| \div \left(-\frac{1}{2} \right)^2 \right\} \times (-3)$$

▶ 답 :

▷ 정답 : -7

해설

$$\begin{aligned} & -6 + \left\{ \left| \frac{5}{4} - \frac{4}{3} \right| \div \left(-\frac{1}{2} \right)^2 \right\} \times (-3) \\ &= -6 + \left(\left| -\frac{1}{12} \right| \div \frac{1}{4} \right) \times (-3) \\ &= -6 + \left(\frac{1}{12} \times 4 \right) \times (-3) \\ &= -6 + (-1) = -7 \end{aligned}$$

14. $1 - \frac{1}{3} \times \left[5 - \left\{ \left(-\frac{1}{2} \right) \times (-2) + 1 \right\} \right]$ 을 계산하면?

① -1

② 0

③ 1

④ 3

⑤ $-\frac{1}{2}$

해설

$$\begin{aligned}(\text{준식}) &= 1 - \frac{1}{3} \times \{5 - (1 + 1)\} \\&= 1 - \frac{1}{3} \times (5 - 2) \\&= 1 - \frac{1}{3} \times 3 \\&= 1 - 1 = 0\end{aligned}$$