

1. 다음 중 계산 결과가 다른 것은?

① $(-7) + (-3)$

② $(-17) + (-7)$

③ $(-11) + (+1)$

④ $(+2) + (-12)$

⑤ $(+1) + (-11)$

해설

① $(-7) + (-3) = -10$

② $(-17) + (-7) = -24$

③ $(-11) + (+1) = -10$

④ $(+2) + (-12) = -10$

⑤ $(+1) + (-11) = -10$

2. 세 수의 유리수의 덧셈으로 계산 결과가 옳은 것은?

$$\textcircled{1} \quad (+2.3) + \left(+\frac{2}{3}\right) + \left(-\frac{16}{5}\right) = -\frac{3}{10}$$

$$\textcircled{2} \quad (-1.1) + (+3.5) + \left(-\frac{7}{2}\right) = -5.9$$

$$\textcircled{3} \quad (+2.4) + \left(-\frac{5}{3}\right) + (+1.1) = +\frac{11}{6}$$

$$\textcircled{4} \quad (-1.8) + \left(-\frac{13}{10}\right) + \left(-\frac{1}{2}\right) = -1.8$$

$$\textcircled{5} \quad \left(+\frac{3}{4}\right) + \left(-\frac{7}{5}\right) + \left(-\frac{3}{2}\right) = -2.1$$

해설

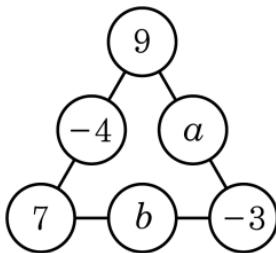
$$\textcircled{1} \quad (+2.3) + \left(+\frac{2}{3}\right) + \left(-\frac{16}{5}\right) = -\frac{7}{30}$$

$$\textcircled{2} \quad (-1.1) + (+3.5) + \left(-\frac{7}{2}\right) = -1.1$$

$$\textcircled{4} \quad (-1.8) + \left(-\frac{13}{10}\right) + \left(-\frac{1}{2}\right) = -3.6$$

$$\textcircled{5} \quad \left(+\frac{3}{4}\right) + \left(-\frac{7}{5}\right) + \left(-\frac{3}{2}\right) = -\frac{43}{20}$$

3. 다음 그림에서 각 변에 놓인 세 수의 합이 모두 같을 때, $a \times b$ 의 값을 구하여라.



▶ 답 :

▷ 정답 : 48 또는 +48

해설

각 변에 놓인 세 수의 합은 $9 + (-4) + 7 = 12$ 이다.

$$(i) 9 + a + (-3) = 12$$

$$a + 9 + (-3) = 12$$

$$a + 6 = 12$$

$$\therefore a = 6$$

$$(ii) 7 + b + (-3) = 12$$

$$b + 7 + (-3) = 12$$

$$b + 4 = 12$$

$$\therefore b = 8$$

따라서 $a \times b = 6 \times 8 = 48$ 이다.

4. 다음 표는 음표와 박자 수를 나타낸 것이다. 다음 악보에서 한 마디의 총 박자 수를 구하여라.



이름	기호	박자수
2분음표	♩	2
4분음표	♪	1
점 8분음표	♪.	$\frac{3}{4}$
8분음표	♪	$\frac{1}{2}$
16분음표	♪♪	$\frac{1}{4}$

▶ 답:

▷ 정답: $\frac{9}{2}$

해설

$$\begin{aligned}
 (\text{총 박자 수}) &= \frac{3}{4} + \frac{1}{2} + 1 + 2 + \frac{1}{4} \\
 &= \left(\frac{3}{4} + \frac{1}{4} \right) + \frac{1}{2} + (1 + 2) \\
 &= 1 + \frac{1}{2} + 3 \\
 &= 4 + \frac{1}{2} \\
 &= \frac{8}{2} + \frac{1}{2} = \frac{9}{2}
 \end{aligned}$$

5. 다음 중 계산이 옳지 않은 것은?

$$\textcircled{1} \quad \left(+\frac{9}{5}\right) + \left(-\frac{6}{5}\right) = +\frac{3}{5}$$

$$\textcircled{2} \quad \left(+\frac{3}{4}\right) + \left(+\frac{1}{4}\right) = +1$$

$$\textcircled{3} \quad (-0.3) + (-0.4) = -0.7$$

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

$$\textcircled{5} \quad \left(-\frac{1}{2}\right) - \left(+\frac{1}{3}\right) = +\frac{5}{6}$$

해설

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

6. 다음 중 계산 결과가 옳지 않은 것은?

$$\textcircled{1} \quad \left(+\frac{3}{2} \right) + \left(+\frac{2}{3} \right) = +\frac{13}{6}$$

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

$$\textcircled{3} \quad \left(-\frac{2}{5} \right) + \left(-\frac{3}{4} \right) = -\frac{23}{20}$$

$$\textcircled{4} \quad (-2.3) + (+1.1) = +1.2$$

$$\textcircled{5} \quad (-0.9) + (+1.6) = +0.7$$

해설

$$\begin{aligned}\textcircled{1} \quad & \left(+\frac{3}{2} \right) + \left(+\frac{2}{3} \right) = \left(+\frac{3}{2} + \frac{2}{3} \right) \\& = +\frac{9+4}{6} = +\frac{13}{6}\end{aligned}$$

$$\begin{aligned}\textcircled{2} \quad & \left(+\frac{1}{4} \right) + \left(-\frac{5}{6} \right) = \left(+\frac{3}{12} \right) + \left(-\frac{10}{12} \right) \\& = \left(\frac{10}{12} - \frac{3}{10} \right) \\& = -\frac{7}{12}\end{aligned}$$

$$\begin{aligned}\textcircled{3} \quad & \left(-\frac{2}{5} \right) + \left(-\frac{3}{4} \right) = -\left(\frac{2}{5} + \frac{3}{4} \right) \\& = -\frac{8+15}{20} = -\frac{23}{20}\end{aligned}$$

$$\textcircled{4} \quad (-2.3) + (+1.1) = -1.2$$