

1. If $\bigcirc = 2$ and $\heartsuit = -2$, find the value of

$$2 \bigcirc + 2 \heartsuit - 6 \bigcirc - 1 \heartsuit$$

2. If $\star = 9$ and $\smile = 3$, find the value of

$$\frac{\star}{\smile} - \smile + 3 \smile$$

3. If $\text{😊} = -8$ and $\text{😞} = 4$, find the value of

$$2 \text{😊} + 3 \text{😊} + 2 \text{😞} + 3 \text{😞}$$

4. If $\triangle = 7$ and $\square = 6$, find the value of

$$3 \triangle \square - \triangle^2$$

5. If $\text{▱} = -3$ and $\text{▭} = -1$, find the value of

$$\text{▱} \text{▭} + \text{▭}^3 - \text{▱}$$

Put the correct sign (+ / -) in the circle.

1. $-m - \{m^2 + 4n - mn\}$

= $-m \bigcirc m^2 \bigcirc 4n \bigcirc mn$

2. $2z - (x + 7y - 3z) + (-3)$

= $2z \bigcirc x \bigcirc 7y \bigcirc 3z \bigcirc 3$

3. $\{yx - (3y - xz) - (xy - zy)\}$

= $yx \bigcirc 3y \bigcirc xz \bigcirc xy \bigcirc zy$

4. $10(m - n) - n(m - n) + m(n - m)$

= $10m \bigcirc 10n \bigcirc nm \bigcirc n^2 \bigcirc mn \bigcirc m^2$

5. $-4(a^2 - b^2 - ab - 4) - 6(a^2 - 9)$

= $\bigcirc 4a^2 \bigcirc 4b^2 \bigcirc 4ab \bigcirc 16 \bigcirc 6a^2 \bigcirc 54$

6. $-(x^2y - y^2z - z^2x) - (x - xyz)$

= $\bigcirc x^2y \bigcirc y^2z \bigcirc z^2x \bigcirc x \bigcirc xyz$

Find the mistake and correct it.

1. $\frac{x}{3} = \frac{5}{2} \Rightarrow 3x = \frac{5}{2}$

$$x = \frac{5}{6}$$

2. $5x = \frac{6}{7} \Rightarrow$

$$x = \frac{6}{7} - 5$$

$$x = \frac{6 - 35}{7} = \frac{-29}{7}$$

3. $2 + x = 16 \Rightarrow$

$$x = \frac{16}{2} = 8$$

4. $x - 4 = \frac{21}{5} \Rightarrow$

$$5x - 4 = 21$$

$$5x = 21 + 4$$

$$5x = 25$$

$$x = \frac{25}{5} = 5$$

5. $\frac{2}{x} - 1 = 19 \Rightarrow$

$$2 - 1 = 19x$$

$$1 = 19x$$

$$19x = 1$$

$$x = \frac{1}{19}$$