

中1数学 前期中間試験対策(1) 改

$$\begin{aligned} 1(1) & -3 - (-5) \\ & = -3 + (+5) \\ & = 2 \end{aligned}$$

$$\begin{aligned} (2) & -\frac{5}{4} - \frac{7}{6} \\ & = -\frac{15}{12} - \frac{14}{12} \\ & = -\frac{29}{12} \end{aligned}$$

2(1) 湖面が海面より422m低いことを表している

$$(2) 4(-\frac{5}{2})$$

$$(3) 2.25 : 2\frac{1}{4} : \frac{9}{4} \xrightarrow{\text{約分}} \frac{4}{9}$$

$$(4) \textcircled{1} 7 \textcircled{2} -6, 7, 0 \textcircled{3} -6, -0.04, -\frac{1}{2} \textcircled{4} 0 \textcircled{5} -6$$

$$(5) \textcircled{1} -0.3 < -0.03 \textcircled{2} -0.66, -\frac{2}{3}, -\frac{3}{5}$$

$$-0.666... = -0.6$$

$$-\frac{2}{3} < -0.66 < -0.6$$

$$(6) \text{ア} \left[-2^4 = -(2 \times 2 \times 2 \times 2) \right]$$

$$3(1) (-1) - (-5) - (+3)$$

$$= (-1) + (+5) + (-3)$$

$$(2) \textcircled{1} -9 + 5 + 4 - 2$$

$$\text{項 } -9, +5, +4, -2$$

$$\textcircled{2} 4 - (-5) + (-3) - 6 - (+1)$$

$$= 4 + (+5) + (-3) - 6 + (-1)$$

$$\text{項 } 4, +5, -3, -6, -1$$

$$4(1) 756 = 2^2 \times 3^3 \times 7$$

$$(2) 756 = 2^2 \times 3^3 \times 7^1$$

$$3 \times 7 = 21$$

$$(2 \times 3 \times 3 \times 7)^2 = 126^2$$

$$21 \text{ を } 2 \text{ 乗にする}$$

$$(3) 150 = 2 \times 3 \times 5^2$$

$$\begin{aligned} 1 & \begin{cases} 1 = 1 \\ 3 = 3 \\ 5 = 5 \\ 5^2 = 25 \end{cases} \end{aligned}$$

$$\begin{aligned} 2 & \begin{cases} 1 = 2 \\ 5 = 10 \\ 5^2 = 50 \end{cases} \end{aligned}$$

$$1, 2, 3, 5, 6, 10, 15, 25, 30, 50, 75, 150$$

(12個)

$$\begin{pmatrix} 1 \times 150 \\ 2 \times 75 \\ 3 \times 50 \\ 5 \times 30 \\ 6 \times 25 \\ 10 \times 15 \end{pmatrix}$$

★約数の個数は素数の指数+1をかけたものの

$$\begin{matrix} \textcircled{1} & \textcircled{2} & \textcircled{3} \\ 2 & \times & 3 & \times & 5 \\ \downarrow +1 & \downarrow +1 & \downarrow +1 \end{matrix}$$

$$\text{約数の個数} = 2 \times 2 \times 3 = 12 \text{ 個}$$

$$5. (1) (-21) + (+6) = -15$$

$$(2) (-18) - (+9) = -18 + (-9) = -27$$

$$(3) -3 + 5 - 7 = -3 - 7 + 5 = -10 + 5 = -5$$

$$(4) -5.7 + (-3.4) - (-1.9) = -5.7 + (-3.4) + (+1.9) = -9.1 + 1.9 = -7.2$$

$$(5) 13 - (+14) - (-26) - 15 = 13 + (-14) + (+26) - 15 = 13 - 14 + 26 - 15 = 13 + 26 - 14 - 15 = 39 - 29 = 10$$

$$6. (1) (+9) \times (-7) = -63$$

$$(2) (-51) \div (-3) = 17$$

$$(3) (-0.8)^2 = 0.64$$

$$(4) -3^2 \times (-3)^3 = -9 \times (-27) = 243$$

$$(5) -\frac{5}{8} \times \frac{3}{8} \div (-\frac{5}{12}) = -\frac{5}{8} \times \frac{3}{8} \times (-\frac{12}{5}) = + \frac{\cancel{5} \times \cancel{3} \times 12}{\cancel{8} \times \cancel{8} \times \cancel{5}} = + \frac{3}{4}$$

$$7. (1) 16 \div (-5-3) = 16 \div (-8) = -2$$

$$(2) -7 - (+6) \times (-3) = -7 - (-18) = -7 + (+18) = 11$$

$$(3) 13 - \{-4 - 14 \div (-2)\} = 13 - \{-4 + 7\} = 13 - (+3) = 13 + (-3) = 10$$

$$(4) \frac{27}{8} \div (-\frac{3}{4}) - (-\frac{5}{8}) \times (+\frac{5}{8}) = \frac{9 \times 27}{8} \times (-\frac{4}{3}) - (-\frac{25}{2}) = -\frac{9}{2} - (-\frac{25}{2}) = -\frac{9}{2} + (+\frac{25}{2}) = \frac{16}{2} = 8$$

$$8. -103 \times (-23) = (-100 - 3) \times (-23) = -100 \times (-23) - 3 \times (-23) = 2300 + 69 = 2369$$

(判断や符号)
 9. $a \times b = 0$ のとき a も b も 0.
 $a \times c =$ 正 なら b が 0 確定
 a, c は 正, 正 or 負, 負
 $a + c =$ 負 なら 両方負であることが確定
 $a - c =$ 正 なら c が絶対値が a より小さい負の数であることが確定

$$9. (1) \underline{b=0} \quad (2) \underline{c}$$

$$\begin{pmatrix} -1 - (-2) \\ = -1 + (+2) \\ = +1 \text{ 正} \end{pmatrix}$$

10

$$(1) +2 - (-8)$$

$$= +2 + (+8)$$

$$= 10 \quad A. 10 \text{ cm}$$

$$(2) F \quad \textcircled{\text{高}} D, A, \textcircled{\text{低}} B, C, E$$

$$+13 +2 -4 -6 -8 -9$$

$$(3) D - E = +13 - (-9)$$

$$= +13 + (+9)$$

$$= 22 \quad A. 22 \text{ cm}$$

$$(4) 147 + (+2 - 6 - 8 + 13 - 9 - 4) \div 6$$

$$= 147 + (+15 - 27) \div 6$$

$$= 147 + (-12) \div 6$$

$$= 147 + (-2)$$

$$= 145 \quad A. 145 \text{ cm}$$

$$(1) (1) \quad 12 + \overset{\text{入}}{(+3)} + \overset{\text{出}}{(-5)} = 10 \quad A. 10 \text{ 個}$$

$$(2) \quad 12 + \overset{\text{入}}{(+3)} + \overset{\text{入}}{(+6)} = 21 \quad A. 21 \text{ 個}$$

$$(3) \quad \text{入} - \text{出} = -2$$

$$(\text{大}1, \text{小}3) (\text{大}3, \text{小}5)$$

$$(\text{大}4, \text{小}2) (\text{大}6, \text{小}4)$$

$$12 (1) \text{ 北極 } -44.7^\circ\text{C} (1\text{月})$$

$$\text{南極 } -66.7^\circ\text{C} (12\text{月})$$

$$\textcircled{\text{差}} \quad \overset{\text{北}}{-44.7} - \overset{\text{南}}{(-66.7)}$$

$$= -44.7 + (+66.7)$$

$$= 22$$

A. 22°C 南極の方が低い

(2) 平均気温の高い月 - 平均気温の低い月 と比べる

$$\text{北極 } 16.5 - (-44.7) \quad \text{南極 } -31.2 - (-66.7)$$

$$= 16.5 + (+44.7)$$

$$= -31.2 + (+66.7)$$

$$= 61.2^\circ\text{C}$$

$$= 35.5^\circ\text{C}$$

・ 寒暖差が大きいのは北極

理由 月平均気温の高い月と低い月の差が北極の方が大きいから。

$$13 \textcircled{1} b \times 2 \times a \quad \textcircled{2} x \times (-3) \times x \times y \times x \times y$$

$$= 2ab \quad = -3x^3y^2$$

$$\textcircled{3} (m+1) \div n$$

$$= \frac{m+1}{n}$$

$$\textcircled{4} (-1) \div a + 0.1 \times b$$

$$= -\frac{1}{a} + 0.1b$$

単位の()をつける!

$$14 (1) 10x + 700 \text{ (円)} \quad (2) \frac{1}{2}\pi x^2 \text{ (cm}^2\text{)}$$

$$(3) \frac{a}{100} \times b = \frac{ab}{100} \text{ (円)}$$

↑ 1gあたりの値段

$$15. x = -3 \text{ のとき}$$

$$(1) 5x + 7$$

$$= 5 \times (-3) + 7$$

$$= -15 + 7$$

$$= -8$$

$$(2) (-x^2)$$

$$= -(-3)^2$$

$$= -(+9)$$

$$= -9$$