

テスト対策①（正の数・負の数） 解答と解説

1 解答 (1) +8 (2) +2.7 (3) $+\frac{2}{3}$ (4) -26 (5) -0.03 (6) $-\frac{9}{4}$

(1) +8 (2) +2.7

(3) $+\frac{2}{3}$ (4) -26

(5) -0.03 (6) $-\frac{9}{4}$

2 解答 (1) -5, -4, -3, -2, -1, 0, +1, +2, +3, +4, +5
(2) 8個

(1) 絶対値が5以下となる数は、数直線上で0からの距離が5以内となる数であるから、
求める整数は -5, -4, -3, -2, -1, 0, +1, +2, +3, +4, +5

(2) 絶対値が3より大きく7以下となる整数は

$$-7, -6, -5, -4, +4, +5, +6, +7$$

よって、求める整数の個数は 8個

3 解答 (1) -7 (2) -2 (3) +5 (4) -19 (5) 0 (6) -8

(1) $(-3)+(-4)=-3-4=-7$

(2) $(-7)+(+5)=-7+5=-2$

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

(4) $(-13)+(-6)=-13-6=-19$

(5) $(-2)+(+2)=0$

(6) $(-8)+0=-8$

4 解答 (1) -12.6 (2) +0.3 (3) $-\frac{3}{2}$

(1) $(-5.1)+(-7.5)=-5.1-7.5=-12.6$

(2) $(-0.6)+(+0.9)=-0.6+0.9=+0.3$

(3) $\left(-\frac{6}{5}\right)+\left(-\frac{3}{10}\right)=-\left(\frac{6}{5}+\frac{3}{10}\right)=-\left(\frac{12}{10}+\frac{3}{10}\right)=-\frac{15}{10}=-\frac{3}{2}$

5 解答 (1) +4 (2) -3 (3) -7 (4) -7 (5) -7 (6) 0

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

(2) $(-8)-(-5)=(-8)+(+5)=-3$

(3) $(-9)-(-2)=(-9)+(+2)=-7$

(4) $(-7)-0=-7$

(5) $(-1)-(+6)=(-1)+(-6)=-7$

(6) $(-3)-(-3)=(-3)+(+3)=0$

6 解答 (1) 8 (2) -4

(1) $(+8)+(-8)-3+6-(-5)=8-8-3+6+5=8$

(2) $-7+(-2)-(+4)+3-(-6)=-7-2-4+3+6=-4$

7 解答 (1) +48 (2) -21 (3) +20 (4) -9 (5) -63 (6) +48
(7) +8 (8) 0

(1) $(+8)\times(+6)=+48$

(2) $(+3)\times(-7)=-21$

(3) $(-5)\times(-4)=+20$

(4) $(-9)\times(+1)=-9$

(5) $(+7)\times(-9)=-63$

(6) $(-6)\times(-8)=+48$

(7) $(-8)\times(-1)=+8$

(8) $0\times(-3)=0$

8 解答 (1) -42 (2) 72

(1) $(-2)\times(-7)\times(-3)=-2\times7\times3=-42$

(2) $(-4)\times6\times3\times(-1)=+4\times6\times3\times1=72$

9 解答 (1) 243 (2) 64 (3) $-\frac{27}{125}$ (4) -81

(1) $3^5 = 3 \times 3 \times 3 \times 3 \times 3 = 243$

(2) $(-8)^2 = (-8) \times (-8) = 64$

(3) $-\left(\frac{3}{5}\right)^3 = -\left(\frac{3}{5} \times \frac{3}{5} \times \frac{3}{5}\right) = -\frac{27}{125}$

(4) $-3^4 = -(3 \times 3 \times 3 \times 3) = -81$

10 解答 (1) -9 (2) +2 (3) -9 (4) 0 (5) +8 (6) -17

(1) $(-36) \div (+4) = -(36 \div 4) = -9$

(2) $(-14) \div (-7) = +(14 \div 7) = +2$

(3) $(+18) \div (-2) = -(18 \div 2) = -9$

(4) $0 \div (-9) = 0$

(5) $(-96) \div (-12) = +(96 \div 12) = +8$

(6) $(-357) \div (+21) = -(357 \div 21) = -17$

11 解答 (1) -3 (2) $-\frac{1}{9}$ (3) $-\frac{3}{10}$ (4) $\frac{9}{10}$

(1) $\frac{2}{3} \times \left(-\frac{9}{10}\right) \div \frac{1}{5} = \frac{2}{3} \times \left(-\frac{9}{10}\right) \times 5$
 $= -\left(\frac{2}{3} \times \frac{9}{10} \times 5\right)$
 $= -3$

(2) $-\frac{8}{9} \div (-12) \times \left(-\frac{3}{2}\right) = -\frac{8}{9} \times \left(-\frac{1}{12}\right) \times \left(-\frac{3}{2}\right)$
 $= -\left(\frac{8}{9} \times \frac{1}{12} \times \frac{3}{2}\right)$
 $= -\frac{1}{9}$

(3) $\frac{2}{5} \div \left(-\frac{6}{7}\right) \div \frac{14}{9} = \frac{2}{5} \times \left(-\frac{7}{6}\right) \times \frac{9}{14}$
 $= -\left(\frac{2}{5} \times \frac{7}{6} \times \frac{9}{14}\right)$
 $= -\frac{3}{10}$

(4) $-\frac{3}{4} \div \frac{15}{16} \div \left(-\frac{8}{9}\right) = -\frac{3}{4} \times \frac{16}{15} \times \left(-\frac{9}{8}\right)$
 $= +\left(\frac{3}{4} \times \frac{16}{15} \times \frac{9}{8}\right)$
 $= \frac{9}{10}$

12 解答 (1) -15 (2) 19 (3) -21

(1) $6 + (-3) \times 7 = 6 + (-21) = -15$

(2) $-8 - (-3) \times 9 = -8 - (-27) = -8 + 27 = 19$

(3) $15 \div (-5) - (-6) \times (-3) = -3 - 18 = -21$

13 解答 (1) 10点 (2) 21点

(1) 得点が一番高い回は1回目, 一番低い回は5回目であるから
 $(+6) - (-4) = 6 + 4 = 10$ (点)

(2) 5回の得点の20点とのちがいの平均は

$$\{(+6) + (+5) + (-3) + (+1) + (-4)\} \div 5 = +1$$

よって, 5回の得点の平均は, 20点より1点高いから

$$20 + 1 = 21 \text{ (点)}$$