

文字と式③ 解答と解説

- 1** **解答** (1) $4a + 20b$ (2) $-12a + 21b$ (3) $7a - 6b$ (4) $-12p + 18q$
 (5) $-3s - 5t$ (6) $-15x + 21y - 12$ (7) $-6p + 30q + 18$
 (8) $10x^2 + 15xy - 5y^2$ (9) $14a^2 + 28ab - 21bc$ (10) $-2m^2 + 4m + 7$
- (1) $4(a + 5b) = 4 \times a + 4 \times 5b$
 $= 4a + 20b$
- (2) $-3(4a - 7b) = (-3) \times 4a + (-3) \times (-7b)$
 $= -12a + 21b$
- (3) $14\left(\frac{1}{2}a - \frac{3}{7}b\right) = 14 \times \frac{1}{2}a + 14 \times \left(-\frac{3}{7}b\right)$
 $= 7a - 6b$
- (4) $27\left(-\frac{4}{9}p + \frac{2}{3}q\right) = 27 \times \left(-\frac{4}{9}p\right) + 27 \times \frac{2}{3}q$
 $= -12p + 18q$
- (5) $-\frac{1}{6}(18s + 30t) = \left(-\frac{1}{6}\right) \times 18s + \left(-\frac{1}{6}\right) \times 30t$
 $= -3s - 5t$
- (6) $-3(5x - 7y + 4) = (-3) \times 5x + (-3) \times (-7y) + (-3) \times 4$
 $= -15x + 21y - 12$
- (7) $6(-p + 5q + 3) = 6 \times (-p) + 6 \times 5q + 6 \times 3$
 $= -6p + 30q + 18$
- (8) $(2x^2 + 3xy - y^2) \times 5 = 2x^2 \times 5 + 3xy \times 5 + (-y^2) \times 5$
 $= 10x^2 + 15xy - 5y^2$
- (9) $\frac{7}{3}(6a^2 + 12ab - 9bc) = \frac{7}{3} \times 6a^2 + \frac{7}{3} \times 12ab + \frac{7}{3} \times (-9bc)$
 $= 14a^2 + 28ab - 21bc$
- (10) $(4m^2 - 8m - 14) \times \left(-\frac{1}{2}\right) = 4m^2 \times \left(-\frac{1}{2}\right) + (-8m) \times \left(-\frac{1}{2}\right) + (-14) \times \left(-\frac{1}{2}\right)$
 $= -2m^2 + 4m + 7$
- 2** **解答** (1) $12a - 3b$ (2) $36x - 21y$ (3) $8a - 16b + 12$ (4) $9m - 6n - 15$

- (1) $\frac{-12x + 7y}{5} \times (-15) = (-12x + 7y) \times (-3)$
 $= (-12x) \times (-3) + 7y \times (-3)$
 $= 36x - 21y$
- (3) $12\left(\frac{2a - 4b + 3}{3}\right) = 4(2a - 4b + 3)$
 $= 8a - 16b + 12$
- (4) $\frac{3m - 2n - 5}{12} \times 36 = (3m - 2n - 5) \times 3$
 $= 9m - 6n - 15$
- 3** **解答** (1) $3a + b$ (2) $3p + 5q$ (3) $2x - 3y$ (4) $-3m + 2n$
 (5) $2a^2 + 3a$ (6) $2x^2 + 3y^2$
- (1) $(12a + 4b) \div 4 = (12a + 4b) \times \frac{1}{4}$
 $= 3a + b$
- (2) $(6p + 10q) \div 2 = (6p + 10q) \times \frac{1}{2}$
 $= 3p + 5q$
- (3) $(12x - 18y) \div 6 = (12x - 18y) \times \frac{1}{6}$
 $= 2x - 3y$
- (4) $(21m - 14n) \div (-7) = (21m - 14n) \times \left(-\frac{1}{7}\right)$
 $= -3m + 2n$
- (5) $(-18a^2 - 27a) \div (-9) = (-18a^2 - 27a) \times \left(-\frac{1}{9}\right)$
 $= 2a^2 + 3a$
- (6) $(32x^2 + 48y^2) \div 16 = (32x^2 + 48y^2) \times \frac{1}{16}$
 $= 2x^2 + 3y^2$