

入試合格者用課題【数学】No.1 解答

1

- (1) -3 (2) -7 (3) -1 (4) 16 (5) -12
- (6) 27 (7) -4 (8) -7 (9) 9 (10) -9
- (11) -64 (12) 64 (13) $\frac{5}{6}$ (14) $-\frac{19}{12}$ (15) -6
- (16) $\frac{8}{3}$ (17) 1 (18) -9 (19) $\frac{1}{2}$ (20) $\frac{3}{4}$

2

- (1) $4a-5$ (2) $5a+5$ (3) $2x+7$ (4) $6x+2$ (5) $-7x+3$
- (6) $6x-8$ (7) $6-10a$ (8) $x+3$ (9) $-3x$ (10) a
- (11) $5a$ (12) $-12x$ (13) $8x^2-x$ (14) $2a^2+5a-2$ (15) $13x^2+3x-1$
- (16) $8x^2+3x-6$ (17) $2x^2-2x$ (18) $3a^2-3a+11$
- (19) $-x^2-4x+7$ (20) $-4x^2+6x-15$

3

- (1) $x=4$ (2) $x=-3$ (3) $x=5$ (4) $x=7$ (5) $x=-\frac{1}{2}$
- (6) $x=1$ (7) $x=-12$ (8) $x=-1$ (9) $x=-2$ (10) $x=-\frac{6}{11}$
- (11) $x=-5$ (12) $x=\frac{5}{2}$ (13) $x=-7$ (14) $x=11$ (15) $x=3$
- (16) $x=6$ (17) $x=-\frac{2}{7}$

4

- (1) $6a^3b^2$ (2) $-3xy^2$ (3) $4x^2y^2$ (4) $25x^2y^4$ (5) $-\frac{15}{x}$
- (6) $-2a^2bc+8ab^2c-6abc^2$ (7) $7x+18y$ (8) $\frac{-3x+5y}{12}$
- (9) $27x^2-36xy+12y^2$ (10) $\frac{1}{2}x-\frac{2}{5}y$ ($0.5x-0.4y$ でも可)

入試合格者用課題【数学】No.2 解答

5 (1) $x = -1, y = -1$ (2) $x = 3, y = -3$ (3) $x = 9, y = -5$

(4) $x = -2, y = -1$ (5) $x = 1, y = 1$ (6) $x = 2, y = 1$

(7) $x = 4, y = 2$ (8) $x = 1, y = 2$

6 (1) $5a^2 + 20ab$ (2) $-6a + 10b$ (3) $6a^2 - 23a - 4$ (4) $x^2 + 7x + 12$

(5) $x^2 - 5x - 14$ (6) $x^2 + 12x + 36$ (7) $x^2 - 2x + 1$ (8) $a^2 - b^2$

(9) $9a^2 - 4b^2$ (10) $x^2 + 2xy + y^2 - 6x - 6y + 5$

7 (1) $2x(4x - 3)$ (2) $3ab(b + 3a)$ (3) $(x + 1)(x + 6)$ (4) $(x + 3)(x - 8)$

(5) $(x - 5)^2$ (6) $(x + 7)(x - 7)$ (7) $(3a - 1)^2$ (8) $2(x - 2)(x - 4)$

8 (1) ± 4 (2) $\pm \frac{5}{8}$

9 (1) 7 (2) -9

10 (1) $2\sqrt{2}$ (2) $3\sqrt{7}$

11 (1) $4\sqrt{35}$ (2) $\sqrt{3}$ (3) -2

12 (1) $\frac{\sqrt{6}}{2}$ (2) $2\sqrt{2}$ (3) $\frac{\sqrt{5}}{10}$ (4) $\sqrt{2}$

13 (1) $x = \pm 7$ (2) $x = \pm \sqrt{3}$ (3) $x = 3 \pm \sqrt{7}$ (4) $x = -4, 2$

(5) $x = -3, 2$ (6) $x = 0, 8$ (7) $x = -5, 2$ (8) $x = -2, 9$

(9) $x = \frac{5 \pm \sqrt{17}}{4}$ (10) $x = \frac{-3 \pm \sqrt{21}}{6}$