

1 次の2次関数のグラフと x 軸の共有点の座標を求めよ。

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|--------------------|--------------------|---------------------|
| (1) $y=2x^2-5x-3$ | (2) $y=3x^2-7x-1$ | (3) $y=-x^2+6x-9$ |
| (4) $y=-(x+1)^2+4$ | (1) $y=x^2-2x-15$ | (2) $y=2x^2+7x-4$ |
| (3) $y=3x^2+7x+1$ | (2) $y=(x+1)(x-5)$ | (3) $y=x^2-9$ |
| (4) $y=3x^2+10x+8$ | (5) $y=2x^2+5x-1$ | (6) $y=4x^2-20x+25$ |
| (1) $y=x^2-4x-5$ | (2) $y=x^2+3x-2$ | (3) $y=2x^2+x-6$ |
| (5) $y=3x^2+8x-3$ | (6) $y=-3x^2-6x-3$ | |

- 解答 (1) (3, 0), $(-\frac{1}{2}, 0)$ (2) $(\frac{7+\sqrt{61}}{6}, 0)$, $(\frac{7-\sqrt{61}}{6}, 0)$ (3) (3, 0)
- (4) (-3, 0), (1, 0) (1) (-3, 0), (5, 0) (2) (-4, 0), $(\frac{1}{2}, 0)$
- (3) $(\frac{-7-\sqrt{37}}{6}, 0)$, $(\frac{-7+\sqrt{37}}{6}, 0)$ (2) (-1, 0), (5, 0)
- (3) (-3, 0), (3, 0) (4) (-2, 0), $(-\frac{4}{3}, 0)$
- (5) $(\frac{-5+\sqrt{33}}{4}, 0)$, $(\frac{-5-\sqrt{33}}{4}, 0)$ (6) $(\frac{5}{2}, 0)$ (1) (-1, 0), (5, 0)
- (2) $(\frac{-3+\sqrt{17}}{2}, 0)$, $(\frac{-3-\sqrt{17}}{2}, 0)$ (3) (-2, 0), $(\frac{3}{2}, 0)$
- (5) (-3, 0), $(\frac{1}{3}, 0)$ (6) (-1, 0)

2 次の放物線と直線は共有点をもつか。もつときは、その座標を求めよ。

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| (1) $y=x^2, y=x+2$ | (2) $y=-x^2+1, y=5-4x$ |
| (3) $y=x^2-x+4, y=2x+2$ | (2) $y=-x^2+1, y=4x+5$ |
| (3) $y=2x^2+5x-3, y=2x-4$ | (1) $y=x^2, y=3x-2$ |
| (3) $y=-x^2-2x+9, y=2x-3$ | (4) $y=2x^2+3x-1, y=-2x+2$ |
| (5) $y=x^2-2, y=-x^2+3x$ | (6) $y=x^2+x, y=x^2-3x+2$ |
| (1) $y=x^2, y=-x+6$ | (2) $y=x^2-2x, y=2x-4$ |

- 解答 (1) (-1, 1), (2, 4) (2) (2, -3) (接点) (3) (1, 4), (2, 6)
- (2) (-2, -3) (3) (-1, -6), $(-\frac{1}{2}, -5)$ (1) (1, 1), (2, 4)
- (3) (-6, -15), (2, 1) (4) (-3, 8), $(\frac{1}{2}, 1)$
- (5) (2, 2), $(-\frac{1}{2}, -\frac{7}{4})$ (6) $(\frac{1}{2}, \frac{3}{4})$ (1) (-3, 9), (2, 4) (2) (2, 0)

3 次の2つの放物線の共有点の座標を求めよ。

- (1) $y=x^2-3x+2, y=-x^2+x+2$ (2) $y=x^2-4x+5, y=-x^2+8x-13$

- 解答 (1) (0, 2), (2, 0) (2) (3, 2)