Test.

Darken the circle in front of the correct answers. (1 mark each)

1. Which of the following quadratic function has the equation of the axis of symmetry which is x = 0?

    ☐ $y = 3x^2 + 4$

    ☐ $y = -(x - 1)^2 + 2$

    ☐ $y = (x + 4)^2$

    ☐ $y = x^2 + 4x$

2. Which of the following quadratic function has the same axis of symmetry as the quadratic function $y = 2(x - 1)^2 + 3$?

    ☐ $y = -2(x + 1)^2 + 3$

    ☐ $y = -\frac{1}{2}(x - 1)^2 + 2$

    ☐ $y = 2(x + 1)^2 - 3$

    ☐ $y = -\frac{1}{2}(x + 1)^2 + 1$

3. Which of the following quadratic function has a minimum value of 5?

    ☐ $y = -2(x - 5)^2 + 3$

    ☐ $y = -2(x - 3)^2 + 5$

    ☐ $y = 2(x - 5)^2 + 3$

    ☐ $y = 2(x - 3)^2 + 5$

4. Which of the following quadratic function has the same vertex as the quadratic function $y = -(x + 4)^2 + 1$?
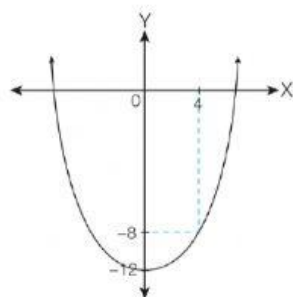
    ☐ $y = (x - 4)^2 + 1$

    ☐ $y = -(x - 4)^2 - 1$

    ☐ $y = 3(x + 4)^2 + 1$

    ☐ $y = -7(x + 4)^2 + 7$

5. Which of the following quadratic function can be graphed as shown below?

    ☐ $y = -\frac{1}{4}x^2 - 12$

    ☐ $y = -4x^2 - 12$

    ☐ $y = 4x^2 - 12$

    ☐ $y = \frac{1}{4}x^2 - 12$