Assignment 4

1. If $y = 2x^2 + 3x - 1$, what is the relative value of the quadratic function at $x = 1$ and $x = 2$? Provide your answer with an explanation for each.

2. For a quadratic function $f(x) = ax^2 + bx + c$, what is the vertex form of the function? Explain your answer.

3. Identify the vertex of the quadratic function $f(x) = x^2 + 2x - 3$.

4. A function $g(x) = x^2 - 4x + 4$ is plotted on a graph. What are the x-coordinates of the vertex of the function?

5. Consider the quadratic function $y = -2x^2 + 4x - 1$. What is the x-coordinate of the vertex of this function? Explain your answer.

6. If $f(x) = x^2 - 6x + 9$, what is the vertex of the quadratic function? Provide a detailed explanation.

7. For the quadratic function $g(x) = 2x^2 + 4x + 1$, determine the vertex of the function and explain your method.

8. A quadratic function $h(x) = x^2 - 4x + 4$ is graphed. Identify the x-coordinate of the vertex of the function.

9. For a quadratic function $y = ax^2 + bx + c$, what is the vertex form of the function? Explain your answer.

10. Identify the vertex of the quadratic function $f(x) = x^2 + 2x - 3$.

11. A quadratic function $g(x) = x^2 - 6x + 9$ is plotted on a graph. What is the x-coordinate of the vertex of the function?

12. Consider the quadratic function $y = -2x^2 + 4x - 1$. What is the x-coordinate of the vertex of this function? Explain your answer.

13. A function $f(x) = x^2 - 6x + 9$ is plotted on a graph. What is the vertex of the quadratic function? Provide a detailed explanation.

14. For the quadratic function $g(x) = 2x^2 + 4x + 1$, determine the vertex of the function and explain your method.

15. A function $y = ax^2 + bx + c$ is graphed. Identify the x-coordinate of the vertex of the function.

16. Identify the vertex of the quadratic function $f(x) = x^2 + 2x - 3$.

17. A quadratic function $g(x) = x^2 - 6x + 9$ is plotted on a graph. What is the x-coordinate of the vertex of the function?

18. Consider the quadratic function $y = -2x^2 + 4x - 1$. What is the x-coordinate of the vertex of this function? Explain your answer.

19. A function $f(x) = x^2 - 6x + 9$ is plotted on a graph. What is the vertex of the quadratic function? Provide a detailed explanation.

20. For the quadratic function $g(x) = 2x^2 + 4x + 1$, determine the vertex of the function and explain your method.