1. Can x = 1 and x = 3 be roots of this function? Why, or why not? Write a possible formula for this function in factored form.



- 2. Use completing the square to find the extreme value of this function. Explain your steps.
- 3. Check your solutions to the function you created using the quadratic formula.
- 4. What do the graph, factored form, vertex form, and quadratic formula tell you about the function? How do the different forms relate to each other?
- 5. A quadratic function is given by  $f(x) = 2(x-1)^2 50$ . Use factoring to find the zeros of the function. Then, make a graph of the function.
- 6. What do the graph, factored form, and vertex form tell you about the function? How do the different forms relate to each other?

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