Warm-Up 2 Calculus AB Name_____
General Derivative Date_____ Bell____

Given: $f(x) = x^2 + 2x - 4$

1. Find $f'(x)$ using the **General Definition** of Derivative.
   Show set up and all work. Make sure to <u>label</u> work!

2.Find the derivative at $x = -1$.

3. Find the instantaneous rate of change at $\boldsymbol{x = 2.}$

4. Write the equation of the line tangent to the curve $\boldsymbol{x = 2}$.

5. Write the equation of the horizontal tangent to $f(x)$.