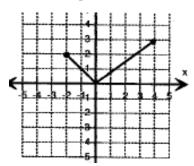
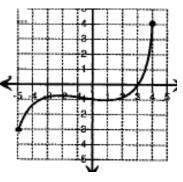
HW Quiz B (Graphing functions and derivatives)

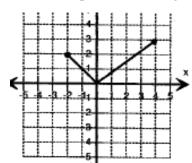
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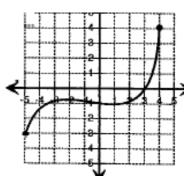
1. Graph the derivative of the functions given below

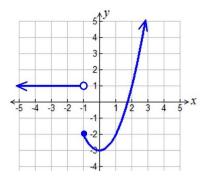




2. Graph the function given the graph of the derivative function

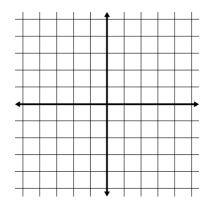






3. Sketch the graph of a continuous function f with f(0) = 1 and

$$f'(x) = \begin{cases} -1, & x < -1 \\ 3, & x > -1 \end{cases}$$



4. Consider the curve defined parametrically by  $x = 2t^3$  and  $y = 3t^2 - 2t$ . Find the <u>equation for</u> the line tangent to the curve at time t = 1.

5. A curve C is defined by the parametric equations  $x = 2t^3$  and  $y = 3t^2 - 2t$ . Find the <u>equation</u> <u>of the line tangent</u> to the graph of C at the point (16, 8)?

6. A curve C is defined by the parametric equations  $x = 2t^3$  and  $y = 3t^2 - 2t$ . Determine the times that the curve has a <u>horizontal tangent</u> and a <u>vertical tangent</u>.