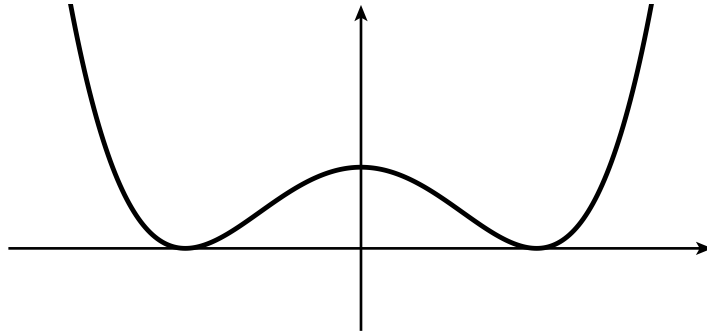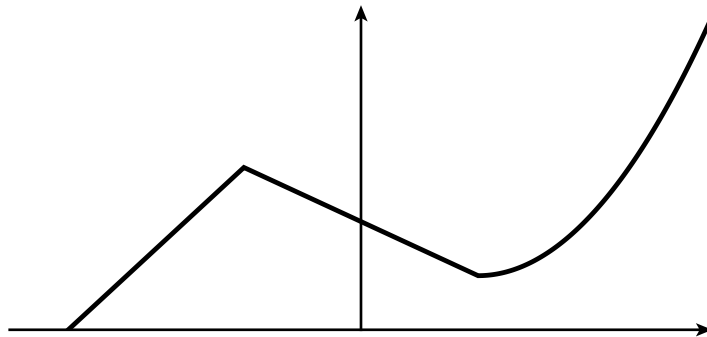1. We showed that if $f(x) = 1/x$ then $f'(x) = -1/x^2$.

   Find the equation of the tangent line to the curve $y = 1/x$ at $x = 2$ and at $x = 4$. Then sketch the graph of $y = 1/x$ and the two tangent lines.
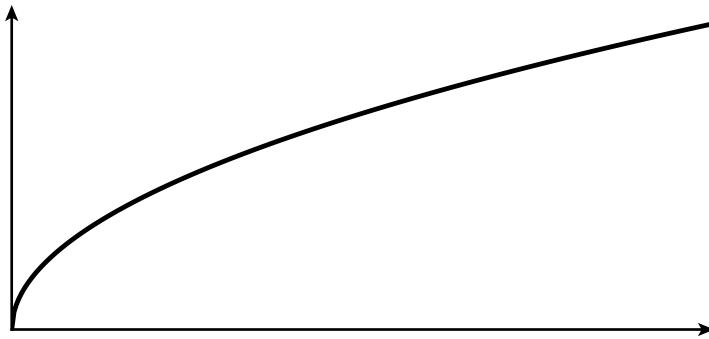
2. Given the graph of $f(x)$ below, sketch $f'(x)$.

3. Given the graph of $f(x)$ below, sketch $f'(x)$.
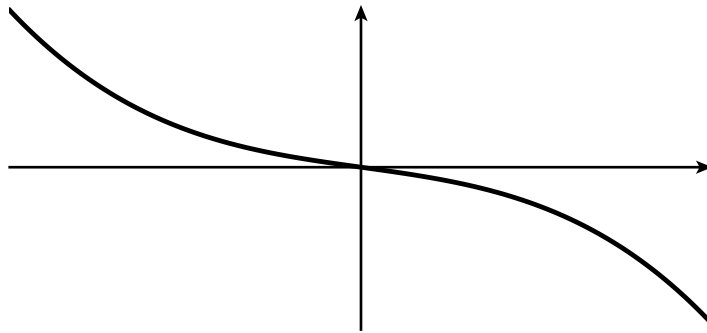
4. The graph below is $f(x) = \sqrt{x}$. Sketch $f'(x)$.

5. From the definition of the derivative, compute $f'(x)$ when $f(x) = \sqrt{x}$. Does your result agree with you sketch above?

6. Given the graph of $f(x)$ below, sketch $f'(x)$.

7. Given the graph of $f(x)$ below, sketch $f'(x)$.