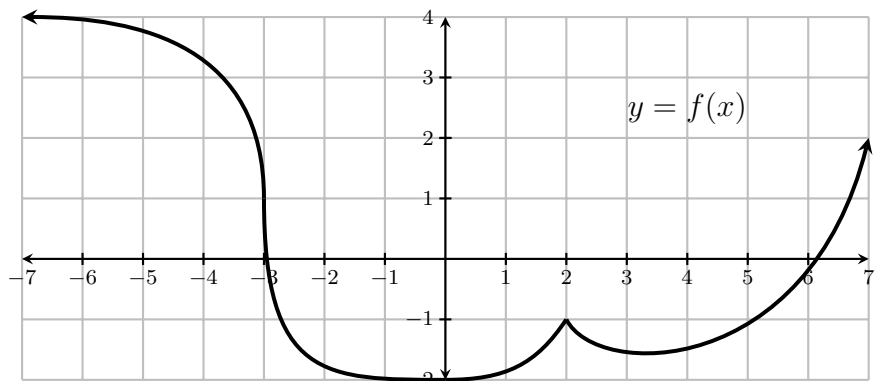
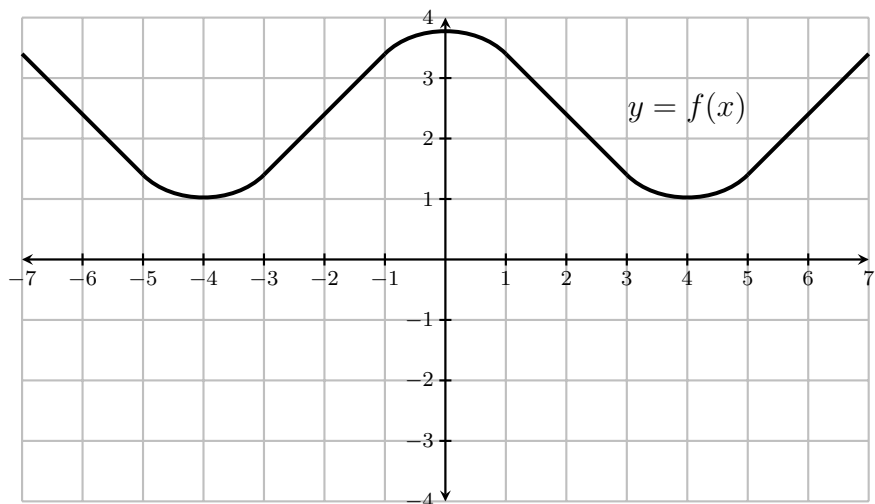


1. (4 pts.) State the intervals on which the function graphed below is differentiable.

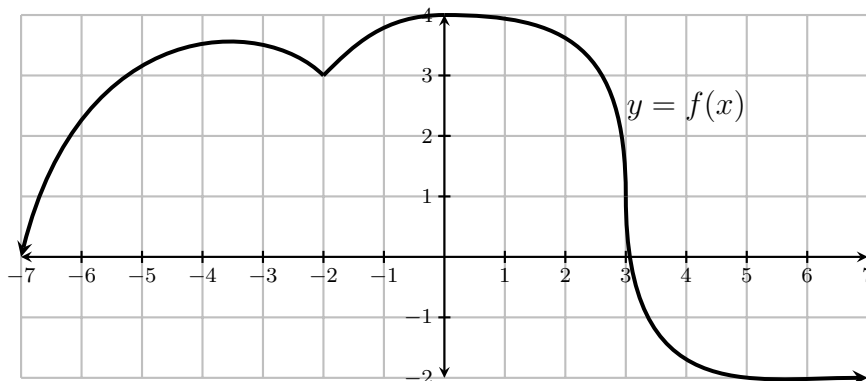


2. (8 pts.) Consider the functions $f(x) = x^2$ and $g(x) = x^3$. Find all x for which the tangent line to the graph of $y = f(x)$ at $(x, f(x))$ is parallel to the tangent line to the graph of $y = g(x)$ at $(x, g(x))$.

3. (8 pts.) The graph of a function $f(x)$ is shown below. Using the same coordinate axis, sketch the graph of its derivative $f'(x)$.



1. (4 pts.) State the intervals on which the function graphed below is differentiable.



2. (8 pts.) Consider the functions $f(x) = x^2$ and $g(x) = 4\sqrt{x}$. Find all x for which the tangent line to the graph of $y=f(x)$ at $(x, f(x))$ is parallel to the tangent line to the graph of $y=g(x)$ at $(x, g(x))$.

3. (8 pts.) The graph of a function $f(x)$ is shown below. Using the same coordinate axis, sketch the graph of its derivative $f'(x)$.

