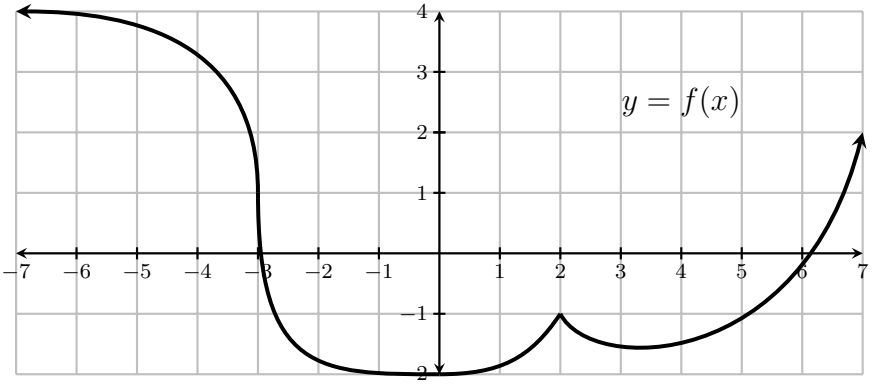
Name: _____

Quiz 7 ♡

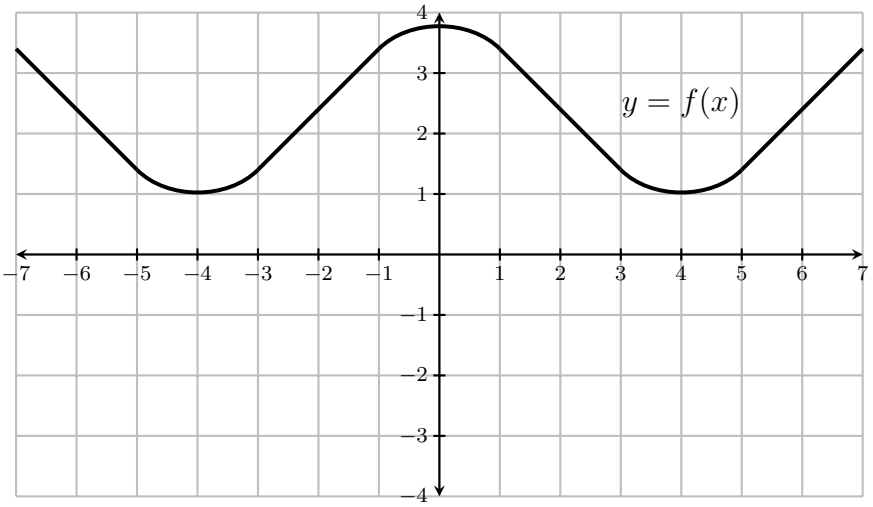
MATH 200
February 5, 2026

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 $f'(x)$



Name: _____

Quiz 7 ♠

MATH 200
February 5, 2026

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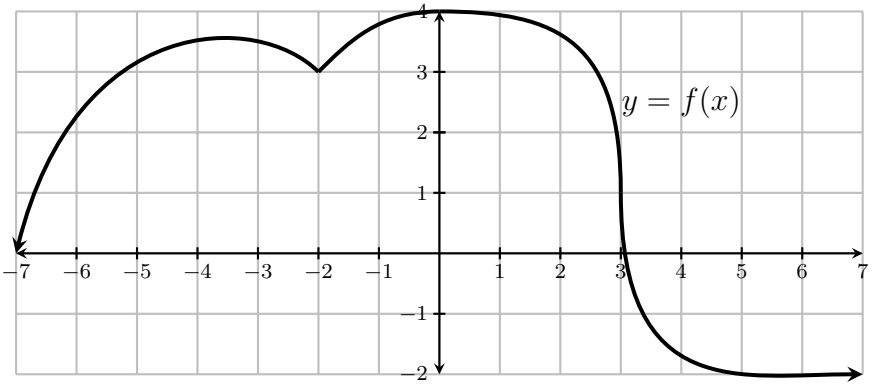

2. (8 pts.) Consider the functions $f(x) = x^2$ and $g(x) = 4\sqrt{x}$. Find all x for which the tangent line to the graph of $y=f(x)$ at $(x, f(x))$ is parallel to the tangent line to the graph of $y=g(x)$ at $(x, g(x))$.

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