

Name: _____

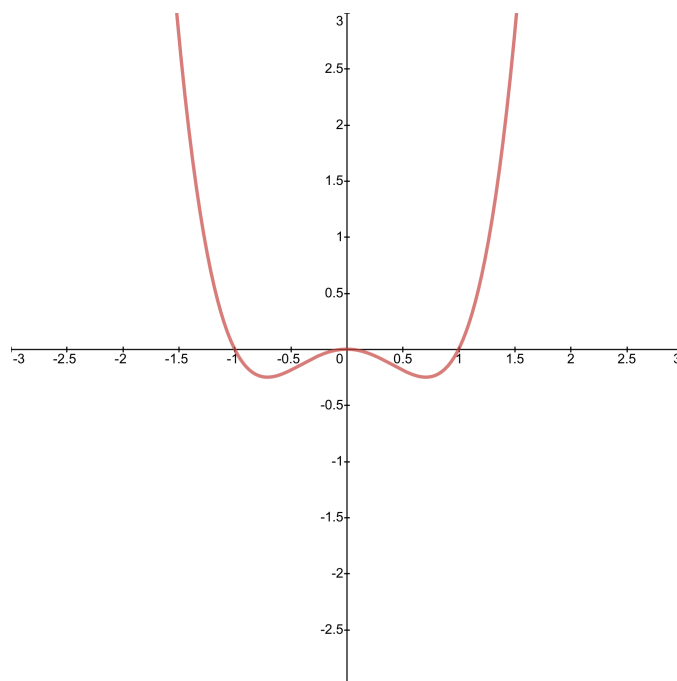
Quiz 2

Math 112

You have 20 minutes to complete **both sides** of this quiz and turn it in. When you're finished, first check your work if there is time remaining, then turn it in. You may use a scientific calculator, but not a graphing one. **Show all your work.**

1. (8 points) Let $f(x) = -3(4x + 1)^2 + 2$. Identify the parent function and every transformation applied to it, but don't graph anything.

2. (8 points) Below is the graph of $y = x^4 - x^2$. Sketch a graph of the function $y = (2x - 2)^4 - (2x - 2)^2$, and **explain your reasoning**.



3. (4 points) Let f be a periodic function. State the definition of the midline of f , assuming it exists.