

Name: \_\_\_\_\_

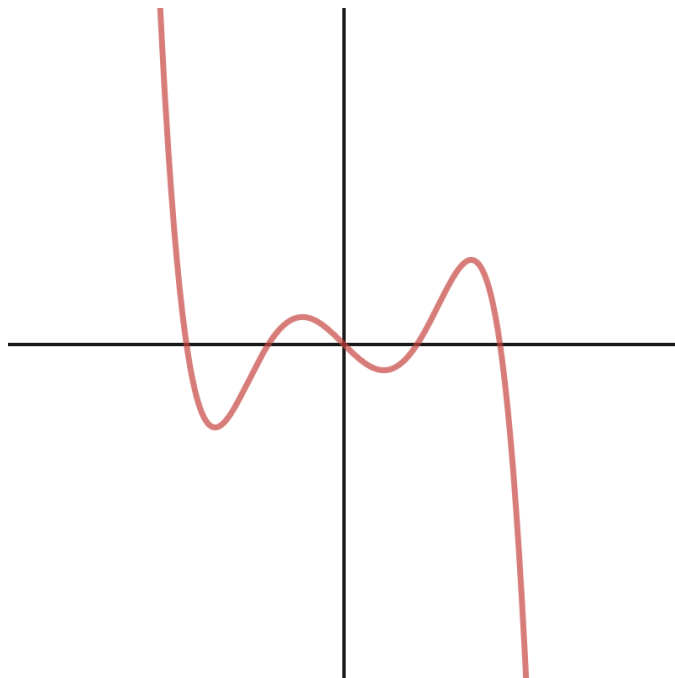
# Quiz 1

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  $f(x) = x^2 + \frac{1}{x^2}$ . Show that  $f$  is an even function.

2. (8 points) Let  $g(x)$  be a function defined by the following graph. Is  $g$  even, odd, or neither? Show all your work.



3. (8 points) Graph the function  $y = 3x^3$  by identifying the parent function and the transformation applied to it, and then graphing each step.