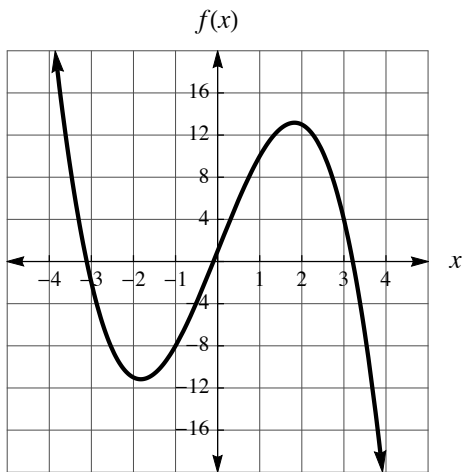


Quiz 3: Version B

First & Last Name: _____ Class: _____

1. Find the inverse of $f(x) = -x^2 - 5$ ($x \geq 0$). Check your work by showing $f(f^{-1}(-6)) = -6$.
Honors: On the same axes, sketch $f(x)$ and $f^{-1}(x)$.

2. Write a slope statement for the function $f(x) = -x^3 + 10x + 1$, which is graphed below.



3. The distance an object is from its starting point (position, p , in meters) as a function of time, t (in seconds), is given by the equation $p(t) = -2t^3 + 12t^2 - 14t$ (also see the graph below).

- i) What is the object's position at $t = 2$ seconds?
- ii) What was the object's displacement between $t = 1$ and $t = 4$ seconds?
- iii) What distance does the object travel between $t = 1$ and $t = 4$ seconds?
- iv) What is the average velocity of the object between $t = 1$ and $t = 4$ seconds?

Honors: What is the average velocity of the object on the interval $0.3 \leq t \leq 3.3$? Your answer should be accurate to two decimal places.

