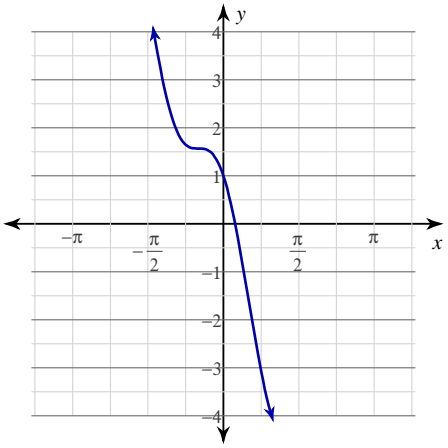
Kuta Software - Infinite Calculus Name_____

Newton's Method

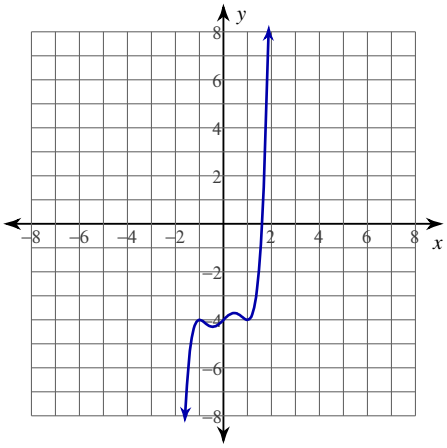
Date_____ Period____

Use two iterations of Newton's Method to approximate the real zeros of each function. Use the provided initial guess.

1) $y = \cos 3x - 3x$
Guess: 0.4

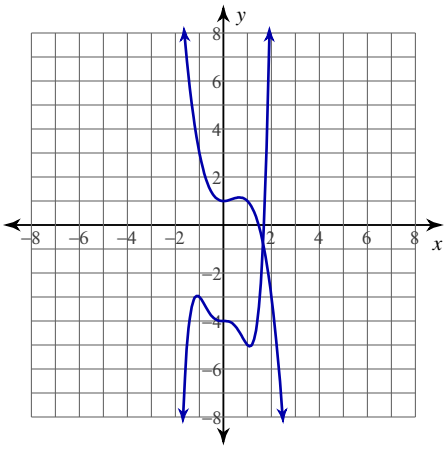


2) $y = x^5 - 2x^3 + x - 4$
Guess: 1.8

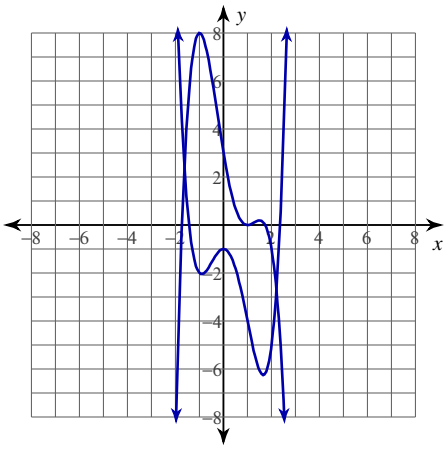


Use Newton's Method to approximate the *x*-coordinates where the two functions intersect.

3) $y = -x^3 + x^2 + 1$
$y = x^5 - 2x^3 - 4$



4) $y = x^4 - x^3 - 3x^2 - 1$
$y = -x^4 + 2x^3 + 2x^2 - 6x + 3$



For each problem, use Newton's Method to approximate the positive root.

5) $\sqrt[5]{4}$

6) $\sqrt[5]{7}$

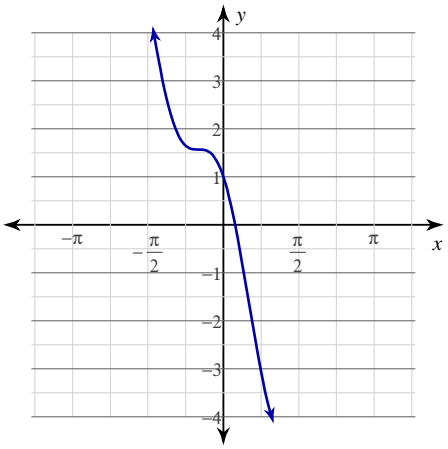
 Name_____

Newton's Method

Date_____ Period____

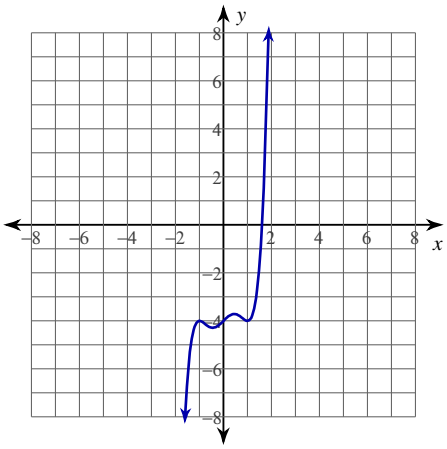
Use two iterations of Newton's Method to approximate the real zeros of each function. Use the provided initial guess.

1) $y = \cos 3x - 3x$
Guess: 0.4



0.246415247722

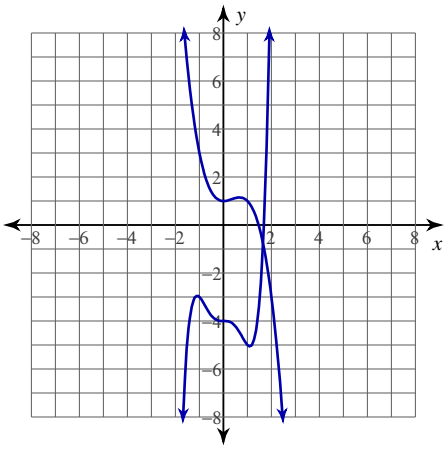
2) $y = x^5 - 2x^3 + x - 4$
Guess: 1.8



1.60907877917

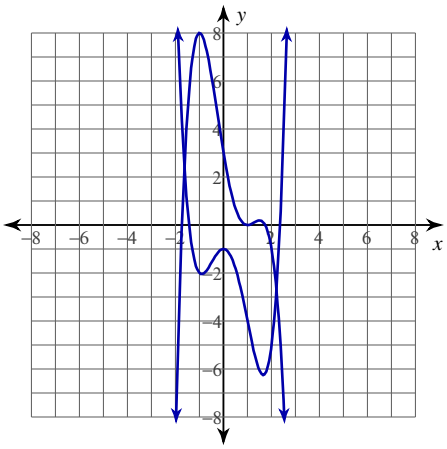
Use Newton's Method to approximate the *x*-coordinates where the two functions intersect.

3) $y = -x^3 + x^2 + 1$
$y = x^5 - 2x^3 - 4$



~ 1.6494

4) $y = x^4 - x^3 - 3x^2 - 1$
$y = -x^4 + 2x^3 + 2x^2 - 6x + 3$



~ −1.6287, 2.2036

For each problem, use Newton's Method to approximate the positive root.

5) $\sqrt[5]{4}$

~ 1.3195

6) $\sqrt[5]{7}$

~ 1.4758