Lesson 4.6 Practice: Finding Zeros of Polynomials

School Launch · Algebra II · Unit 4: Polynomial Functions · Worksheet A

Calculator for decimals

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. Find all real zeros of $f(x) = x^3 + x^2 - 2x$. EASY

2. Find all real zeros of $f(x) = x^3 - 4x$. EASY

3. Find all real zeros of $f(x) = x^3 - 5x^2 + 6x$. EASY

4. Find all real zeros of $f(x) = x^4 - 2x^3 - 6x^2 + 6x + 9$. MEDIUM

5. Find all real zeros of $f(x) = x^4 - 3x^3 - 3x^2 + 15x - 10$. MEDIUM

6. Find all real zeros of $f(x) = x^4 - x^3 - 7x^2 + 5x + 10$. MEDIUM

7. Find all real zeros of $f(x) = x^4 - 6x^2 + 8$. MEDIUM

8. Find all real zeros of $f(x) = x^4 - 5x^3 + x^2 + 25x - 30$. HARD

9. Find all real zeros of $f(x) = x^4 - 6x^2 + 5$. HARD

10. Find all real zeros of $f(x) = x^4 - 4x^3 + 12x - 9$. HARD