

Lesson 5.6 Worksheet

Name: _____

List the possible rational zeros of the function using the rational zero theorem.

1.) $f(x) = 2x^4 + 6x^3 - 7x + 9$

2.) $h(x) = 2x^3 + x^2 - x - 18$

Find all real zeros of the function.

3.) $f(x) = x^3 - 5x^2 - 22x + 56$

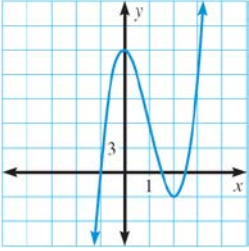
4.) $g(x) = x^3 - 31x - 30$

5.) $h(x) = x^3 + 8x^2 - 9x - 72$

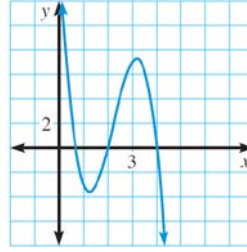
6.) $f(x) = x^4 + 2x^3 - 9x^2 - 2x + 8$

Use the graph to help find all real zeros of the function.

7.) $f(x) = 4x^3 - 12x^2 - x + 15$



8.) $f(x) = -3x^3 + 20x^2 - 36x + 16$



Find all real zeros of the function.

9.) $f(x) = 3x^3 + 19x^2 + 4x - 12$

10.) $g(x) = 2x^4 + 9x^3 + 5x^2 + 3x - 4$

Divide using polynomial long division.

12.) $(8x^3 + 5x^2 - 12x + 10) \div (x^2 - 3)$

Find the other zeros of the function given one zero.

13.) $f(x) = 3x^3 + 34x^2 + 72x - 64$; zero: -4