Honors Algebra Trig

10/23/17

Chapter 5 Board Review

Simplify.

$$\frac{\left(2x^2y^4z^7\right)^4}{\left(2x^4y^3\right)\cdot\left(4xz^3\right)^2}$$

$$\frac{4x^{-3}}{\left(2y^{-3}z^2\right)^2}$$

Factor Completely:

$$f(x)=x^4-x^3-2x^2-4x-24$$

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

Factor over the rational, real and complex numbers

$f(x) = x^4 - 81$

$f(x) = x^4 + x^2 - 30$

Find the zeros:

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

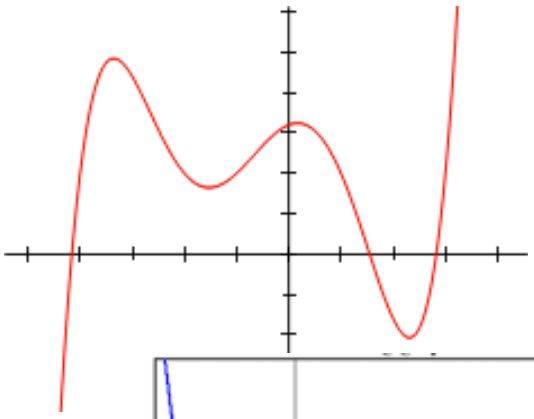
$$f(x)=8x^6-19x^3-27$$

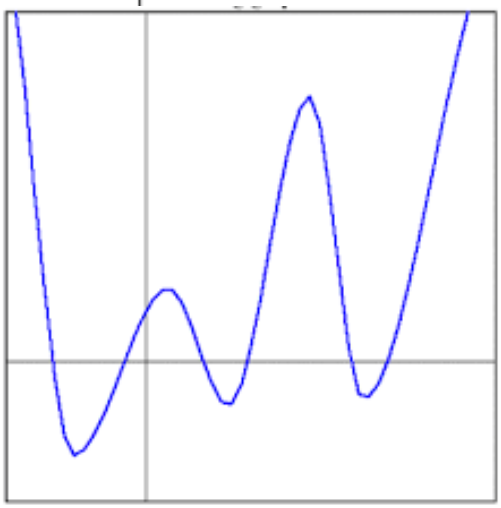
Given $f(x)=x^4-6x^3+14x^2-6x+13$, where i is a zero. Find the remaining zeros.

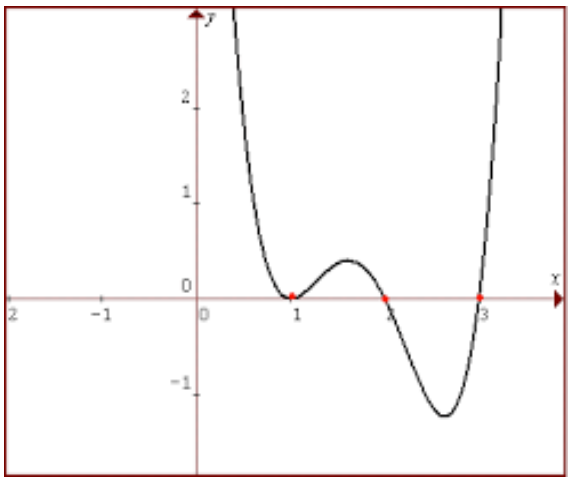
Sketch a 5th degree polynomial with:

- 5 real zeros.
- 3 real zeros and 2 complex.
- 1 real zero and 4 complex.

How many real zeros does each graph have?







Write the equation for the polynomial with x-intercepts (-3, 0)m1, (-1,0)m2, and (2,0)m3, and y-intercept at (0, 4)

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