

Warm Up week 16 Tuesday

1. Write a polynomial function in standard form with the zeroes: 1, -5(multiplicity 2)

$$y = x^3 + 9x^2 + 15x - 25$$

2. Put into standard form, then use vocabulary to name by degree and number of terms.

$$(x+2)(x^2 - 2x + 4) - x^2(x-1)$$

$$x^2 + 8 \quad \text{quadratic binomial}$$

3. Find all solutions.

$$x^5 = 4x - 3x^3$$

$$\{0, \pm 1, \pm 2i\}$$

4. Find all solutions.

$$125x^3 = 27$$

$$\left\{ \frac{3}{5}, \frac{-3 \pm 3i\sqrt{3}}{10} \right\}$$

5. Simplify

a)  $\sqrt[3]{27x^3}$

$$3x$$

b)  $\sqrt{12a^4w^3}$

$$2a^2w\sqrt{3w}$$