Concepts of Algebra 2 Notes **Section 5-5: Theorems about Roots of Polynomial Equations**

***Objectives:**

*Rational Root Theorem

Got It? **1.** What are the rational roots of $3x^3 + 7x^2 + 6x - 8 = 0$?

Got It? **2.** What are the rational roots of $2x^3 + x^2 - 7x - 6 = 0$?

*Conjugate Root Theorem

Got It? 3. A cubic polynomial $P(x)$ has real coefficients. If $3 - 2i$ and $\frac{5}{2}$ are two roots of $P(x) = 0$, what is one additional root?

Got It? 4. What quartic polynomial equation has roots $2 - 3i$, 8, 2?

Inclass: p. 316 #16, 20, 26
Homework: p. 316 #11-29(odd)
Interactmath: #16, 19, 23, 25, 27

Fix: #11 $2x^3 - 5x + 3 = 0$

#13 $4x^3 + 2x - 6 = 0$

#15 $7x^3 - x^2 + 4x + 12 = 0$

#17 $10x^3 - 7x^2 + x - 4 = 0$