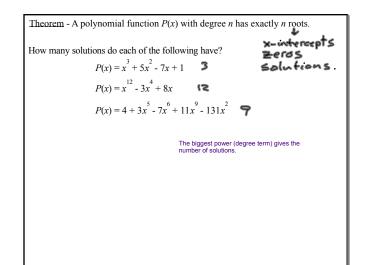
Algebra II 8-6 Some Useful Theorems



<u>Conjugate Root Theorem</u> -	If $P(x)$ has all real coefficients, then any complex solutions must come as conjugate pairs.
(pg 380) All but one of the equations solution	ons are given. Find the remaining root.
All but one of the equations solution	its are given. This the remaining foot.
5) $x^3 - 3x^2 + 4x - 12$	{ 3, 2 <i>i</i> , -Z <i>i</i> + Imaginary solutions come as conjugate pairs (theorem)
Find a cubic equation with integral	coefficients that has the given roots.
1) {-1, 5 <i>i</i> , -Si }	(x+1)(x-5:)(x+5i)=0
1) (1, 51, - 2,)	
	(x+1)(x2-25;2)=0
Imaginary solutions come as conjugate pairs (theorem)	(x+)(x2+22)=0
	X3+x2+25x+25=0

