3/26 Sub Assignment – Solving Cubic Polynomials

Do work on separate paper! NO WORK = NO CREDIT!

1) State the quadratic formula.

This week for SLOT we'll be solving quadratics using the quadratic formula again. Solve the following using the quadratic formula.

- 2) $x^{2} 4x + 5 = 0$ 3) $x^{2} + 6x + 12 = 0$ 4) $2x^{2} - 2x + 2 = 0$ 5)
- 6) State the formula for the SUM OF CUBES.7) State the formula for the DIFFERENCE OF CUBES.

Factor AND solve each of the following polynomials.

8) $x^3 + 27 = 0$ 9) $x^3 - 8 = 0$ 10) $x^3 + 64 = 0$ 11) $x^3 - 125 = 0$ 12) $27x^3 + 1 = 0$ 13) $64x^3 - 1 = 0$ 14) $8x^3 - 27 = 0$

On the CFA that we took last week many of us attempted to use the sum/difference of cubes on cubic trinomials... Remember, first we need to factor out the GCF and then factor the remaining quadratic!

Factor AND solve each of the following cubic trinomials.

$15) x^3 - 6x^2 + 9x = 0$	16) $x^3 + 10x^2 + 25x = 0$
17) $2x^3 - 18x^2 + 40x = 0$	$18) \ 3x^3 + 15x^2 + 18x = 0$
$19) \ 3x^3 - 2x^2 - 5x = 0$	$20) \ 6x^3 + 15x^2 + 6x = 0$

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