Name: _____ **Date:** _____

Class: 4th (D-E)

Math Drop Quiz

Solve the below quadratic equations:

1- $(2x+8)(x+2)+(x+1)(-x-4)=0$

$2(x+4)(x+2)-(x+1)(x+4)=0$

$(x+4)[2(x+2)-(x+1)]=0$

$(x+4)(2x+4-x-1)=0$

$(x+4)(x+3)=0$

$x=-4$ or $x=-3$

2- $9x^2-12x=-4$

$9x^2-12x+4=0$

$(3x-2)^2=0$

$3x=2$

$x=2/3$

3- $5x^2+2x-2=0$

$\Delta = 2^2-4(5)(-2)$

$= 4+40 = 44$

$x = \frac{-2\pm\sqrt{44}}{2(5)} = \frac{-2\pm 2\sqrt{11}}{10}$

$x = \frac{-1\pm\sqrt{11}}{5}$

4- $10x^2-2=-12$

$10x^2 = -12+2$

$10x^2 = -10$

$x^2 = -1$

Impossible

5- $3x^2+x+2=0$

$\Delta = 1-4(3)(2)$

$= 1-24$

$= -23<0$

Impossible

No roots

6- $(x+1)^2+1=5$

$(x+1)^2 = 5-1$

$(x+1)^2 = 4$

$x+1 = \pm\sqrt{4}$

$x+1 = \pm 2$

$x = \pm 2-1$

$x=-3$ or $x=1$

7- $(2x+1)(x+3)+3=0$

$2x^2+6x+x+3+3=0$

$2x^2+7x+6=0$ Sum = 7, Product = 12

$2x^2+3x+4x+6=0$

$x(2x+3)+2(2x+3)=0$

$(2x+3)(x+2)=0$ $\Rightarrow x=-3/2$ or $x=-2$