Get out your assignment from last time

5.3 Quadratic Formula

(11) $-V = -3V^2 + 70$

$3V^2 - V - 70 = 0$

$a=3 \quad b=-1 \quad c=-70$

$V = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

$V = \frac{1 \pm \sqrt{(-1)^2-4(3)(-70)}}{2(3)}$

$V = \frac{1 \pm \sqrt{841}}{6}$

$V = \frac{1 \pm 29}{6}$

$V = \frac{(1+29)}{6} \quad V = \frac{(1-29)}{6}$

$V = 5 \quad V = \frac{-14}{3}$

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(13) $6k^2 - 11k - 87 = 0$

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(16) $4k^2 - 16 = 0$

$a=4 \quad b=0 \quad c=-16$

$k = \frac{0 \pm \sqrt{0-4(4)(-16)}}{2(4)}$

$k = \frac{\pm\sqrt{256}}{8}$

$k = \frac{\pm 16}{8}$

$k = 2 \quad k = -2$

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Calendar Math

Multiply: Use a box.

Remember $i^2 = -1$

Always check your answer in your calculator. the i key is 2nd and decimal.

Multiply: 4i(2+9i)

	2	$+9i$
$4i$	$8i$	$36i^2$

$8i + 36i^2$

$8i + 36(-1)$

$-36 + 8i$

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Multiply: (1+4i)(12+11i)

	1	$+4i$
12	12	$48i$
$+11i$	$11i$	$44i^2$

-44

$-32 + 59i$

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Multiply:(-6-7i)(4-12i)

	-6	$-7i$
4	-24	$-28i$
$-12i$	$72i$	$84i^2$

$-24 - 28i + 72i + 84(-1)$

$-24 + 44i - 84$

$-108 + 44i$

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Multiply: (-10-4i)(-7+5i)

$-10-4i$

-7	70	$28i$
$5i$	$-50i$	$-20i^2$

20

$90-22i$

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Ex. 1: Solve: $-3x^2+2x-4=0$

$a=-3 \quad b=2 \quad c=-4$

$X=\frac{-2\pm\sqrt{(2)^2-4(-3)(-4)}}{2(-3)}$

$X=\frac{-2\pm\sqrt{-44}}{-6}$

$44 = 4 \cdot 11$

$X=\frac{2\pm2i\sqrt{11}}{6}$

$X=\frac{-1\pm i\sqrt{11}}{-3}$

$X=\frac{1\pm i\sqrt{11}}{3}$

$X=\frac{1+i\sqrt{11}}{3}$ $\quad X=\frac{1-i\sqrt{11}}{3}$

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Discriminant

(1) $-2v^2-4v-2=0$

$a=-2 \quad b=-4 \quad c=-2$

b^2-4ac

$(-4)^2-4(-2)(-2)$

Discrim $=0$

1 real solution

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(4) $10k^2+4k+8=7$

$-7 \quad -7$

$10k^2+4k+1=0$

$a=10 \quad b=4 \quad c=1$

$(4)^2-4(10)(1)$

Discr $=-24$

2 imaginary

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#8 $-k^2-3k+2=0$

$a=-1 \quad b=-3 \quad c=2$

$\frac{-b\pm\sqrt{b^2-4ac}}{2(a)}$

$\frac{3\pm\sqrt{(-3)^2-4(-1)(2)}}{2(-1)}$

$\frac{-3\pm\sqrt{17}}{+2}$

$X=\frac{-3+\sqrt{17}}{2}$ $\quad X=\frac{-3-\sqrt{17}}{2}$

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#9 $2a^2-7a-30=0$

$a=2 \quad b=-7 \quad c=-30$

$X=\frac{-b\pm\sqrt{b^2-4ac}}{2a}$

$X=\frac{7\pm\sqrt{289}}{4}$ $\quad 289 = 17 \cdot 17$

$X=\frac{7\pm17}{4}$

$X=\frac{(7+17)}{4}$ $\quad X=\frac{7-17}{4}$

$X=6$ $\quad X=-\frac{5}{2}$

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5.3 Evens due at the end of class

5.4 All Homework

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