

NO CALCULATOR

When you are finished with warm-up, work on Chapter 4 Review

Simplify

1. i^{93}

i

2. $\frac{5}{2+3i}$

$10/13-15/13i$

3. $(3-8i)-(5+2i)$

$-2-10i$

Find the discriminant. Describe the roots.

4. $3(x+1)^2 - 7 = 0$

$b^2-4ac = 84;$

2 irrational roots

5. $2x^2 - 4x + 3 = 0$

$b^2-4ac = -8;$

2 imaginary roots

Solve the quadratic inequality.

6. $3x < -x^2 + 4$

$-4 < x < 1$

$x^2 + 3x - 4 < 0$ (open)

$(x+4)(x-1) < 0$

$x+4=0 \quad x-1=0$

$x=-4 \quad x=1$

	$(x+4)(x-1)$
$x=-5$	$(-)(-)= +$
$x=0$	$(+)(-)= -$
$x=2$	$(+)(+)= +$

