Warmup 11

Factoring and Solving Quadratics

1. Solve the equation $x^2-6x+8=0$ by factoring the trinomial.

Mult to get 8	Add to get -6
-4, -2	$-4+-2=-6$

$x^2-6x+8=0$

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

$x=4, 2$

2. Solve the equation $x^2-1=0$

$x^2-1=0$

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

$x=1, -1$

3. Factor the polynomial using the GCF:

$2m^2n-16mn^3+4m^7$

$2m(mn-8n^3+2m^6)$

4. Solve $2x^2-4x-6=0$ using the quadratic formula.

$a=2$

$b=-4$

$c=-6$

$$x=\frac{4\pm\sqrt{(-4)^2-4(2)(-6)}}{2(2)}$$

$x=3, -1$

5. Confirm your answer above by using the graphing calculator to *Calculate Zeros.*

Hint: $y=2x^2-4x-6$