Assignment 2

Multiply the polynomial by the monomial.

1. $5\left(x^2-3x+2\right)$

2. $3x\left(x^2-4x+1\right)$

3. $-x^2\left(2x^4-x^2+1\right)$

4. $x^2y\left(x^2-2xy+6y^3\right)$

5. $-ab^2\left(-a^2b+ab^2-5b\right)$

6. $3x^2\left(2xy^3+3x^2y^2+y\right)$

7. $-2x\left(3xy^2-x^2y+1\right)$

Factor using the greatest common factor.

1. $2x^3+6x^4$

2. x^3+x^2-x

3. $12b^3-6b^4$

4. $5x^2-30$

5. $5x^3+3x^2+x$

6. $4y^6-12y^5-20y^3$

Name: _____

Multiply each monomial together.

1. $(3x^3)(-4x)(x^3)$

2. $-x^2\cdot x\cdot -2x^4$

3. $2a\cdot 5a^2\cdot -2a^5$

4. $-4x(-3x)(-x)$

5. $\left(\frac{1}{2}a^2b\right)\left(6ab^3\right)\left(-a^2b\right)$

6. $\left(-x^2yz^3\right)\left(x^3y^3\right)\left(-xy^4z\right)$

FOIL Practice

Multiply the expressions using FOIL.

1. $(x+2)(x+3)$

2. $(x+4)(x-6)$

3. $(x+3)(x-3)$

4. $(x+5)(x+5)$

5. $(x-6)(x-2)$

6. $(x-7)(x+3)$

Getting ready to Solve Quadratics.

Find two numbers that:

1. Multiply to 16 and add to 10 _____ , _____

2. Multiply to -16 and add to 0 _____ , _____

3. Multiply to 16 and add to 8 _____ , _____

4. Multiply to 16 and add to -8 _____ , _____

5. Multiply to -12 and add to +1 _____ , _____

Find two numbers that multiply to the last term and add to the middle term.

6. $x^2+8x+12$

7. $x^2+7x+12$

8. $x^2+13x+12$

9. x^2+8x+7

10. $x^2-5x-14$

11. $x^2+3x-18$

Solve each proportion by "cross-multiplying".

1. $\frac{3x+7}{4}=\frac{7x-1}{5}$

2. $\frac{2x-10}{x}=\frac{3}{4}$

3. $\frac{12}{36}=\frac{2x}{24}$

4. $\frac{14}{8x}=\frac{42}{72}$

5. $\frac{3}{x}=\frac{3x+6}{x^2+12}$