

## Assignment 1

Multiply each monomial together.

1.  $x^2 \cdot x^3$

2.  $x^3 \cdot x \cdot x^5$

3.  $-x \cdot x^5$

4.  $-x^4 \cdot -x^3 \cdot -x$

5.  $ab \cdot ab^3$

6.  $(-xy)(x^3y)(-xy^4)$

7.  $(-xyz)(-x^2y^4)(-xz^2)$

Multiply each monomial together.

1.  $(-3x^2)(-4x^4)(x)$

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

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

4.  $4x^4(-3x^3)(-2x^2)$

5.  $(2ab)(ab^3)(5a^2b)$

6.  $(-x^2y)(6x^3y^3z)(-xy^4)$

7.  $(-xy)(-x^2y^4z^3)(-xy^2z)$

Name: \_\_\_\_\_

Multiply the polynomial by the monomial.

1.  $2x(x^2 - 3x + 6)$

2.  $3x^2(2x^3 + 3x^2 - 5)$

3.  $xy(x^2 - 2x + 6y)$

4.  $4xy(xy^2 - xy - 2y)$

5.  $-ab(-ab + a^3b^2 - 5)$

6.  $-2x^2y^3(x^2 - 3xy + 2xy^2)$

**Getting ready to Solve Quadratics.***Evaluate the expression in pairs.*

1.  $4 \times 6 = \underline{\quad}$  and  $4 + 6 = \underline{\quad}$

2.  $4 \times ^{-}6 = \underline{\quad}$  and  $4 + ^{-}6 = \underline{\quad}$

3.  $^{-}4 \times 6 = \underline{\quad}$  and  $^{-}4 + 6 = \underline{\quad}$

4.  $^{-}4 \times ^{-}6 = \underline{\quad}$  and  $^{-}4 + ^{-}6 = \underline{\quad}$

5.  $3 \times ^{-}5 = \underline{\quad}$  and  $3 + ^{-}5 = \underline{\quad}$

6.  $5 \times 4 = \underline{\quad}$  and  $5 + 4 = \underline{\quad}$

7.  $^{-}3 \times ^{-}3 = \underline{\quad}$  and  $^{-}3 + ^{-}3 = \underline{\quad}$

8.  $3 \times ^{-}3 = \underline{\quad}$  and  $3 + ^{-}3 = \underline{\quad}$

9.  $3 \times 1 = \underline{\quad}$  and  $3 + 1 = \underline{\quad}$

**Getting ready to Solve Quadratics.***Find two numbers that:*

10. Multiply to 12 and add to 7  $\underline{\quad}$ ,  $\underline{\quad}$

11. Multiply to 12 and add to 8  $\underline{\quad}$ ,  $\underline{\quad}$

12. Multiply to -8 and add to 2  $\underline{\quad}$ ,  $\underline{\quad}$

13. Multiply to -20 and add to -1  $\underline{\quad}$ ,  $\underline{\quad}$

14. Multiply to -20 and add to +1  $\underline{\quad}$ ,  $\underline{\quad}$

15. Multiply to 10 and add to -7  $\underline{\quad}$ ,  $\underline{\quad}$

16. Multiply to 10 and add to 11  $\underline{\quad}$ ,  $\underline{\quad}$

17. Multiply to 30 and add to 13  $\underline{\quad}$ ,  $\underline{\quad}$

18. Multiply to 30 and add to 11  $\underline{\quad}$ ,  $\underline{\quad}$

19. Multiply to -30 and add to -7  $\underline{\quad}$ ,  $\underline{\quad}$

20. Multiply to -9 and add to 0  $\underline{\quad}$ ,  $\underline{\quad}$

*Solve each proportion by “cross-multiplying”.*

1.  $\frac{2x-3}{x} = \frac{1}{2}$

2.  $\frac{x+10}{x} = \frac{18}{12}$

3.  $\frac{30}{4x} = \frac{10}{24}$

4.  $\frac{90}{81} = \frac{10}{3x}$

5.  $\frac{5}{15} = \frac{x}{x+8}$