Assignment #1 (Ch. P: P.1)

Name: _____ Date: _____

Review of FOILING & Solving Equations

Notes

Simplify each of the following problems by foiling/ distributing.

Distributive Property	**FOIL**	**Distributive Property of Binomial & Trinomial**
Multiply the outer term by each term in the parentheses.	Multiplying 2 binomials: **F** - First, **O** - Outer, **I** - Inner, & **L** - Last	Multiplying 1 binomial & 1 trinomial: Multiply the 1st term of the binomial by each term of the trinomial & do the same with the 2nd term of the binomial.
Note: Add exponents of terms under multiplication.	**Note**: Add exponents of terms under multiplication.	
$6x(2x+3)$	$\left(2x^2+2\right)\left(6x^2+1\right)$	**Note**: Add exponents of terms under multiplication.
		$(x^4-1)(x^2-2x+3)$

Practice Problems

Simplify each of the following problems by foiling/ distributing.

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

2. $(4x+1)(2x+6)$

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

4. $(x-4)^2$

5. $4x(8x^4-3x^2-5)$

6. $(3x^2-2x)(4x^2+5)$

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

8. $5x^3(3x^5+9x^3-x)$

9. $(5x+2)^2$

10. $(4x^3-5)(9x^4+6x)$

11. $\left(5x^3-9x\right)(6x^4-7x^2+8)$

12. $6x^4(7x-1)^2$

13. $\left(8x^6-7x^3\right)\left(2x^3-9x\right)$

14. $(6x^3-7)^2$

15. $(5x^4-8x^2)^2(2x^7-3x)$

<u>Notes</u>

When the solution:
- Equals itself (ex: 7 = 7), **ALL REAL SOLUTIONS / ∞ SOLUTIONS**
- Is not equal / false (ex: 3 = -2), **NO SOLUTION**

Solve the equation and check your solution (If not possible, explain why).

<u>Variable on Both Sides of =</u>	**<u>NO SOLUTION</u>**	**<u>ALL REAL SOLUTIONS</u>**
$4(3x-3)=7x+18$	$7=6-4x+4x$	$-28=-7(3x+4)+21x$

<u>Practice Problems</u>

Solve the equation and check your solution (If not possible, explain why).

16. $1=5+x-x$

17. $-8=-(x+4)$

18. $6=1-2x+5$

19. $-18-6x=6(1+3x)$

20. $5x-14=8x+4$

21. $x-1=5x+3x-8$

22. $2(4x-3)-8=4+2x$

23. $8(k-6)+58=2(4k+5)$

24. $24x-22=-4(1-6x)$

25. $3x+11=5x-7$

26. $-(1+7x)-6(-7-x)=36$

27. $5x+34=-2(1-7x)$

28. $-(-4x+7)=-2+4x$

29. $4(8x-1)=19+32x$

30. $-5(1-5x)+5(-8x-2)=-4x-8x$