Ms. Reiff
Math Block 2A
Week 1- Lesson 1

Notes on Multiplying Monomials

Review: An exponent tells you how many times to multiply the base by itself.

Ex.: x^2 means $x \cdot x$ x^4 means $x \cdot x \cdot x \cdot x$

Monomial- one term (There are no + or – signs)

Ex.: $2x^3$ or $5x^2y^3$ or 3^5 or x^7

Multiplying Monomials- $x^3 \cdot x^4 = x \cdot x \cdot x \cdot x \cdot x \cdot x \cdot x$

1. Ask yourself: How many x's are there in total (7)
2. So, the answer is x^7

****Quick way to do this (without writing out all the x's)****

ADD THE EXPONENTS

Here are some examples for you:

1. $x^5 \cdot x^7$

$5 + 7 = 12$

So,

x^{12}

2. $x^6(x^3)$ ←Parenthesis means the same as ·

$6 + 3 = 9$

So,

x^9

3. $x^2 \cdot x$ ←If there is no exponent shown, it is a 1

$2 + 1 = 3$

So,

x^3

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Notes Continued

Review: **Coefficients**- number in front of a variable

Ex.: $\mathbf{3}x^2$ $\mathbf{15}y$ $\mathbf{-6}x^3y^2$

****Coefficients will be MULTIPLIED****

Here are some examples for you:

1. $(5x^2)(4x^3)$ ←Multiply coefficients and add exponents

$20x^5$

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

$-8x^7y^4$

3. $(10y^6)(4y^7)$

$40y^{13}$

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Multiplying Monomials

Multiply and simplify.

1. $x^4 \cdot x^7$
2. $d \cdot d^3$
3. $9x^5 \cdot x^2$
4. $(3a^4)(7a^5)$
5. $(y^5)(y^6)$
6. $(n^3)(n^8)$
7. $5^2 \cdot 5^6$
8. $(4x^3)(3x^2)$
9. $(5x^2b)(6x^3b^2)$
10. $(-3a^3n^4)(-3a^3n)$
11. $(-6m^5n^6)(2m^2n^4)$
12. $c^5 \cdot d^3 \cdot c^3$
13. $(x^2y)(7xy^3)$
14. $4m^5 \cdot 9m^2$
15. $(xy)(x^4y^4)$

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16. $(3a^3c^5)(9a^3c^3)$

17. $4x^8 \cdot 2$

18. $-5nx \cdot 4x^2 \cdot 0 \cdot n^4$

19. $xy \cdot xy^2 \cdot y^3$

20. $(x^5y)(x^4y^6)$

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Week 1- Lesson 2

Multiplying Monomials

Multiply and Simplify.

1. $(8x^2y^6)(8x^4y^8)$

2. $(2x^5y^3)(xy^2)$

3. $(2x^5y^6)(2x^3y^4)$

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

5. $(-7x^4)(6x^2)$

6. $(4x^5y^8)(9xy^7)$

7. $(5wx^7y^3)(2w^4x^2y^8)$

8. $(x^5y^{10})(x^4y^6)$

9. $(7x^3y^9)(7x^3y^{11})$

10. $(5x^4)(-3x^2)$

11. $x^4 \cdot x^5$

12. $(2x^4y)(6xy^4)$

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Week 1- Lesson 2

Review- Finding place value

1,	2	3	4,	5	6	7
Millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones

Write the place value that is underlined.

1. 6<u>7</u>8

2. 9,7<u>2</u>3

3. <u>2</u>,904

4. <u>3</u>14

5. 8<u>3</u>,635

6. 2<u>3</u>7,052

7. <u>1</u>23,456

8. 9<u>6</u>

9. 3<u>4</u>,567