

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.: $3x^2$ $15y$ $-6x^3y^2$

****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. 678

2. 9,723

3. 2,904

4. 314

5. 83,635

6. 237,052

7. 123,456

8. 96

9. 34,567