**ML #2: Multiplying Expressions Involving Exponents (Exponent Unit - Math 7 Plus)**

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| **Review of Combining Like Terms**   * How many terms are in the expressions below?     3x2 + 2y + x2 + 6y  3m3 + 2m2 + 5m2 + 7m3   * Remember terms are split by addition and subtraction signs and you can combine like terms. |
| **Multiplying Expressions with the same Base**  **Think It Out:**   |  |  | | --- | --- | | What does a2 • a3 mean? | Simplify a2 • a3 | | What does m • m2 m3 mean? | Simplify m • m2 m3 |   **RULE FOR MULTIPLYING EXPRESSIONS WITH THE SAME BASE**  **TRY THESE: Simplify**  1) 3 33 2) 3-4 • 34  3) (2fg2)(4fg)(3f-2g5)  4) Find the area of rectangle. 3x  9x3 |
| **Power to a Power**   * **Use what you know to find a shortcut for simplifying expressions with powers. Complete each statement by showing equivalent expressions. Let your final answer be written as a base raised to a single power.**   ***Look at your answers.***   * What do you notice about the two exponents in the original expression as compared to the value of the exponent in the final expression? * What operation would allow you to go straight from the original two exponents to the final one?   **RULE FOR POWER TO A POWER WITH THE SAME BASE**  **TRY THESE: Simplify**  1) (m2n4)3 2) (2b)2 3) (4gh)2 • (2g2h2)-3 |

Practice for Exponent Unit ML #2: Multiplying Expressions with the Same Base (Math 7+)

**TRY THESE: Simplify**

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4) Find the area of the rectangle. 4d2

3d2 + 4

5) (3x3y3)5 6) (7d2)2 • -3d-3 7) xy2(xy)3

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