

## Powers &amp; Exponents

Date \_\_\_\_\_ Period \_\_\_\_\_

**Simplify the expressions. 1) "Stretch" (expand) the expression 2) Rearrange then 3) Simplify.**

1)  $5vu^2 \cdot u^3$

$5vu^5$

2)  $2ba^3 \cdot b^2$

$2b^3a^3$

3)  $4xy^3 \cdot 5x^2y^3$

$20x^3y^6$

4)  $5ab^2 \cdot 3b$

$15ab^3$

5)  $(2yx^2 \cdot 3y^3)^3$

$216y^{12}x^6$

6)  $(xy^2)^3 \cdot 3xy^2$

$3x^4y^8$

7)  $(mn)^3(6m^2n^2)^3$

$216m^9n^9$

8)  $(2uv \cdot 2uv^2)^2$

$16u^4v^6$

9)  $(5y^3)^2(3x^2y^3)^2$

$225y^{12}x^4$

10)  $(6m^2n^3)^2(5m)^3$

$4500m^7n^6$