

Name: _____

Date: _____

BLM 3.3.3

Student Success: Exponent Law for Multiplication of Powers

Complete the table below. Make up your own questions for the blank rows.

| Product | Expanded Form | Single Power |
|----------------------------------|--|--------------|
| $x^4 \times x^3$ | $= (x \times x \times x \times x) \times (x \times x \times x)$ | $= x^7$ |
| $y^5 \times y^6$ | $= (y \times y \times y \times y \times y) \times (y \times y \times y \times y \times y \times y)$ | $= y^{11}$ |
| $m^3 \times m^2$ | = | = |
| $a^4 \times a^5$ | = | = |
| $t^6 \times t$ | = | = |
| $w^7 \times w^2$ | = | = |
| $h^2 \times h^4$ | = | = |
| $p^8 \times p^5$ | = | = |
| | = | = |
| | = | = |
| $x^a \times x^b$ | = | = |
| | | |
| $c^2 d^3 \times c^4 d^5$ | $= (c \times c \times d \times d \times d) \times (c \times c \times c \times c \times d \times d \times d \times d \times d)$ | $= c^6 d^8$ |
| $k^3 j^4 \times k^5 j^2$ | = | = |
| $p^4 q^2 \times p^2 q^3$ | = | = |
| $v^5 z^3 \times v^3 z^4$ | = | = |
| $g^2 t^5 \times g^4 t^3$ | = | = |
| | = | = |
| | = | = |
| $a^4 b^2 c^5 \times a^3 b^4 c^4$ | = | = |
| | | |
| | | |

Complete this statement: When multiplying powers with the same base