NAME _____ QUARTER _____

GRADE & SECTION _____ DATE _____

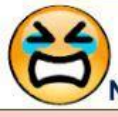
Activity: Laws of Exponents

- $a^m \cdot a^n = a^{m+n}$
- $\frac{a^m}{a^n} = a^{m-n}$
- $(a^m)^n = a^{m \cdot n}$
- $(a^m b^n)^p = a^{mp} b^{np}$
- $\left(\frac{a^m}{b^n}\right)^p = \frac{a^{mp}}{b^{np}}$

Simplify the following expressions by applying the laws of exponents.

1. $a^3 \cdot a^5 = a^{\square}$
2. $a^3 b \cdot ab^6 = a^{\square} b^{\square}$
3. $(2b^5)^3 = \square b^{\square}$
4. $(a^4 b^2)^3 = a^{\square} b^{\square}$
5. $(a^2)^3 (a^2)^2 = a^{\square}$
6. $(3b^2)(2b) = \square b^{\square}$
7. $\frac{a^7}{a^3} = a^{\square}$
8. $\left(\frac{a^3 b^5}{ab}\right)^2 = a^{\square} b^{\square}$
9. $\frac{(4a^4)^2}{(2a)^3} = \square a^{\square}$
10. $(5a^2 bc^4)^0 = \square$

How many attempts? ___.
How well did you do?

 Need help!  Just OK!  Splendid

I HAVE TO KEEP IN MIND THAT…

_____

_____

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LIVEWORKSHEETS