Name_____

Section 10.2 – Practice

From Kuta Software and 10.2 Practice B

Part A. Use the rule below to simplify each expression. Write each answer as a power.

$$a^m \cdot a^n = a^{m+n}$$

1) $4^2 \cdot 4^2$

2) $4 \cdot 4^2$

3) $3^2 \cdot 3^2$

4) $2 \cdot 2^2 \cdot 2^2$

5) $2n^4 \cdot 5n^4$

6) $6r \cdot 5r^2$

7) $2n^4 \cdot 6n^4$

8) $6k^2 \cdot k$

9) $5b^2 \cdot 8b$

10) $4x^2 \cdot 3x$

Part B. Use the rule below to simplify. Write each answer as a power.

$$(a^m)^n = a^{mn}$$

11) $(3^4)^3$ 12) $(w^5)^4$ 13) $(5^2)^3$ 14) $(y^4)^6$

Part C. Simplify each expression below.

$$(ab)^m = a^m \cdot b^m$$

15) $(2x)^3$ 16) $(3xy)^2$ 17) $(4x)^2$ 18) $(3x^2y)^3$