

**10.1-10.4**

**Review**

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1)  $b^3 \bullet b^2$

2)  $g^7 \bullet g^9$

3)  $7^4 \bullet 7^5$

4)  $\left(\frac{7}{8}\right) \bullet \left(\frac{7}{8}\right)^4$

5)  $j \bullet j^2 \bullet j^3$

## **The Product of Powers Property:**

To multiply powers with the same base \_\_\_\_\_

\_\_\_\_\_.

***...with coefficients***

6)  $(7n^6)(3n^5)$

7)  $(-6x^2y^4)(4x^5y)$

***Let' see...***

8)  $(7^2)^3$

9)  $\left[\left(\frac{2}{3}\right)^2\right]^4$

10)  $(h^3)^4$

11)  $\left[(-5)^4\right]^6$

**The Power of Powers Property:**

To find a power of a power \_\_\_\_\_ .

***Let' see...***

12)  $(4d^5)^3$

13)  $(-2x^4y^2)^3$

14)  $(-5m^3)^2$

**The Power of Products Property:**

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## The Quotient of Powers Property:

\_\_\_\_\_ base & \_\_\_\_\_ the exponents.

$$15) \frac{n^{24}}{n^{16}}$$

$$16) \frac{1}{x^5} \bullet x^8$$

$$17) \frac{1}{(-7)^4} \bullet (-7)^{11}$$

$$18) \frac{x^3 y}{x^2}$$

## RULES:

- ANY number to the zero power equals \_\_\_\_\_.
- $a^{-n}$  is the \_\_\_\_\_ of  $a^n$ .

## Evaluate

19)  $5^{-2}$

20)  $75^0$

21)  $(-56)^0$

22)  $\left(\frac{2}{5}\right)^{-3}$

23)  $\frac{1}{3^{-4}}$

24)  $(-3)^{-3}$