

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Operations with Exponents

Simplify the exponents.

1)  $(4z^3 \cdot 2z)^2$

7)  $(w \cdot 4w^3 \cdot w^2)^3$

2)  $\frac{z^5}{z^2}$

8)  $\left(\frac{dn}{5d^2n^5}\right)^2$

3)  $\left(\frac{w^2}{w^3}\right)^3$

9)  $\frac{g^5}{g^{-2}}$

4)  $7w \cdot 8w^{-6}$

10)  $(5k^3z)^6$

5)  $7b \cdot 9b^6$

11)  $8^3 \cdot 8^6$

6)  $\left(\frac{3wk^5}{8w^3k^2}\right)^3$

12)  $\frac{4g^6}{9g^3k^2}$



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## Operations with Exponents

Simplify the exponents.

1)  $(4z^3 \cdot 2z)^2$

$$64z^8$$

2)  $\frac{z^5}{z^2}$

$$z^3$$

3)  $\left(\frac{w^2}{w^3}\right)^3$

$$\frac{1}{w^3}$$

4)  $7w \cdot 8w^{-6}$

$$\frac{56}{w^5}$$

5)  $7b \cdot 9b^6$

$$63b^7$$

6)  $\left(\frac{3wk^5}{8w^3k^2}\right)^3$

$$\frac{27k^9}{512w^6}$$

7)  $(w \cdot 4w^3 \cdot w^2)^3$

$$64w^{18}$$

8)  $\left(\frac{dn}{5d^2n^5}\right)^2$

$$\frac{1}{25d^2n^8}$$

9)  $\frac{g^5}{g^{-2}}$

$$g^7$$

10)  $(5k^3z)^6$

$$15625k^{18}z^6$$

11)  $8^3 \cdot 8^6$

$$8^9$$

12)  $\frac{4g^6}{9g^3k^2}$

$$\frac{4g^3}{9k^2}$$

