

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

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

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## Operations with Exponents

Simplify the exponents.

1)  $9h^3 \cdot 5h^6n^2$

7)  $\frac{8k^3g^6}{7kg^2}$

2)  $2c^{-5}r^5 \cdot 8cr^{-6}$

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

3)  $\left(\frac{6hz^4}{2h^2z^6}\right)^3$

9)  $(3y^2 \cdot y)^3$

4)  $\frac{2k^{-6}}{8k^2}$

10)  $z \cdot z^3$

5)  $\left(\frac{ck}{9c^3k^5}\right)^3$

11)  $\frac{6s^2}{4s^6y^5}$

6)  $(3h^2)^3$

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

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## Operations with Exponents

Simplify the exponents.

$$1) \quad 9h^3 \cdot 5h^6n^2$$
$$45h^9n^2$$

$$2) \quad 2c^{-5}r^5 \cdot 8cr^{-6}$$
$$\frac{16}{c^4r}$$

$$3) \quad \left( \frac{6hz^4}{2h^2z^6} \right)^3$$
$$\frac{27}{h^3z^6}$$

$$4) \quad \frac{2k^{-6}}{8k^2}$$
$$\frac{1}{4k^8}$$

$$5) \quad \left( \frac{ck}{9c^3k^5} \right)^3$$
$$\frac{1}{729c^6k^{12}}$$

$$6) \quad (3h^2)^3$$
$$27h^6$$

$$7) \quad \frac{8k^3g^6}{7kg^2}$$
$$\frac{8k^2g^4}{7}$$

$$8) \quad \left( \frac{2^2}{2} \right)^3$$
$$2^3$$

$$9) \quad (3y^2 \cdot y)^3$$
$$27y^9$$

$$10) \quad z \cdot z^3$$
$$z^4$$

$$11) \quad \frac{6s^2}{4s^6y^5}$$
$$\frac{3}{2s^4y^5}$$

$$12) \quad (4h^4d^3)^5$$
$$1024h^{20}d^{15}$$