

# Exponents

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

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

## Evaluate the Exponents.

1)  $8h^6 \times 3h^{-6} \times 7h^{-5} =$  \_\_\_\_\_

2)  $\frac{14x^2y^{-7}}{7x^{-9}} =$  \_\_\_\_\_

3)  $\left(\frac{1}{z}\right)^6 \times \left(\frac{1}{z}\right)^2 =$  \_\_\_\_\_

4)  $\frac{15a^7b^8}{30a^3b^4} =$  \_\_\_\_\_

5)  $\frac{4r}{6r^{-3}} =$  \_\_\_\_\_

6)  $24mn^{-5} \times 3m^8n^{10} =$  \_\_\_\_\_

7)  $7g^{-5}h^6 \times 8gh^{-6} =$  \_\_\_\_\_

8)  $6b^3 \times 2b^{-5} \times 6b^7 =$  \_\_\_\_\_

9)  $\frac{b^2}{b^6} =$  \_\_\_\_\_

10)  $\frac{y^6}{y^{-5}} =$  \_\_\_\_\_

11)  $\frac{5kg^3}{4k^4g^5} =$  \_\_\_\_\_

12)  $\frac{15x^3y^4}{8x^4y^8} =$  \_\_\_\_\_

13)  $20n^{-8} \times 3n^4 =$  \_\_\_\_\_

14)  $\left(\frac{12x}{24x^3}\right)^5 \times \left(\frac{4x^{-7}}{8x}\right) =$  \_\_\_\_\_

15)  $\left(\frac{8}{16b}\right)^{-4} \times \left(\frac{2}{4b}\right)^{-7} =$  \_\_\_\_\_

16)  $\frac{9d^6}{4d^3b^2} =$  \_\_\_\_\_

# Exponents

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## Evaluate the Exponents.

$$1) 8h^6 \times 3h^{-6} \times 7h^{-5} = \frac{168}{h^5}$$

$$2) \frac{14x^2y^{-7}}{7x^{-9}} = \frac{2x^{11}}{y^7}$$

$$3) \left(\frac{1}{z}\right)^6 \times \left(\frac{1}{z}\right)^2 = \frac{\left(\frac{1}{z}\right)^8}{1}$$

$$4) \frac{15a^7b^8}{30a^3b^4} = \frac{a^4b^4}{2}$$

$$5) \frac{4r}{6r^{-3}} = \frac{2r^4}{3}$$

$$6) 24mn^{-5} \times 3m^8n^{10} = \frac{72m^9n^5}{1}$$

$$7) 7g^{-5}h^6 \times 8gh^{-6} = \frac{\left(\frac{56}{g^4}\right)}{1}$$

$$8) 6b^3 \times 2b^{-5} \times 6b^7 = \frac{72b^5}{1}$$

$$9) \frac{b^2}{b^6} = \frac{1}{b^4}$$

$$10) \frac{y^6}{y^{-5}} = \frac{y^{11}}{1}$$

$$11) \frac{5kg^3}{4k^4g^5} = \frac{5}{4k^3g^2}$$

$$12) \frac{15x^3y^4}{8x^4y^8} = \frac{15}{8xy^4}$$

$$13) 20n^{-8} \times 3n^4 = \frac{60}{n^4}$$

$$14) \left(\frac{12x}{24x^3}\right)^5 \times \left(\frac{4x^{-7}}{8x}\right) = \frac{1}{64x^{18}}$$

$$15) \left(\frac{8}{16b}\right)^{-4} \times \left(\frac{8}{4b}\right)^{-7} = \frac{b^{11}}{8}$$

$$16) \frac{9d^6}{4d^3b^2} = \frac{9d^3}{4b^2}$$