

# Exponents

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

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

## Evaluate the Exponents.

1)  $3a^3b^2 \times 4a^5bc^3 =$  \_\_\_\_\_

2)  $\frac{40r^{-8}s^2}{30s^{-10}} =$  \_\_\_\_\_

3)  $\frac{2cd^3}{5c^6d^2} =$  \_\_\_\_\_

4)  $\frac{27x^{12}y^{11}}{9x^{-9}y^{-2}} =$  \_\_\_\_\_

5)  $d^{11} \times d^{-9} =$  \_\_\_\_\_

6)  $15m^6n^3 \times 5m^8n^2 =$  \_\_\_\_\_

7)  $\left(\frac{3}{4}\right)^4 \times \left(\frac{3}{4}\right)^6 =$  \_\_\_\_\_

8)  $2b^7 \times 7b^{-9} =$  \_\_\_\_\_

9)  $ab \times 3a^{-5}b^{-6} =$  \_\_\_\_\_

10)  $\frac{10x^{-4}}{40x^{11}} =$  \_\_\_\_\_

11)  $\left(\frac{1}{3}\right)^5 \times \left(\frac{1}{3}\right)^3 =$  \_\_\_\_\_

12)  $\frac{26r^7s^9}{6r^{-12}s^8} =$  \_\_\_\_\_

13)  $25n^2 \times 20n^7 =$  \_\_\_\_\_

14)  $\frac{5n}{3n^{-6}} =$  \_\_\_\_\_

15)  $\left(\frac{n}{12n}\right)^3 \times \left(\frac{2n}{3n}\right)^{-6} =$  \_\_\_\_\_

16)  $\frac{7m^{-4}}{2m^9} =$  \_\_\_\_\_

# Exponents

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## Evaluate the Exponents.

- 1)  $3a^3b^2 \times 4a^5bc^3 = \underline{12a^8b^3c^3}$
- 2)  $\frac{40r^{-8}s^2}{30s^{-10}} = \underline{\frac{4s^{12}}{3r^8}}$
- 3)  $\frac{2cd^3}{5c^6d^2} = \underline{\frac{2d}{5c^5}}$
- 4)  $\frac{27x^{12}y^{11}}{9x^{-9}y^{-2}} = \underline{3x^{21}y^{13}}$
- 5)  $d^{11} \times d^{-9} = \underline{d^2}$
- 6)  $15m^6n^3 \times 5m^8n^2 = \underline{75m^{14}n^5}$
- 7)  $\left(\frac{3}{4}\right)^4 \times \left(\frac{3}{4}\right)^6 = \underline{\left(\frac{3}{4}\right)^{10}}$
- 8)  $2b^7 \times 7b^{-9} = \underline{\frac{14}{b^2}}$
- 9)  $ab \times 3a^{-5}b^{-6} = \underline{\frac{3ab}{a^5b^6}}$
- 10)  $\frac{10x^{-4}}{40x^{11}} = \underline{\frac{1}{4x^{15}}}$
- 11)  $\left(\frac{1}{3}\right)^5 \times \left(\frac{1}{3}\right)^3 = \underline{\left(\frac{1}{3}\right)^8}$
- 12)  $\frac{26r^7s^9}{6r^{-12}s^8} = \underline{\frac{13r^{19}s}{3}}$
- 13)  $25n^2 \times 20n^7 = \underline{500n^9}$
- 14)  $\frac{5n}{3n^{-6}} = \underline{\frac{5n^7}{3}}$
- 15)  $\left(\frac{n}{12n}\right)^3 \times \left(\frac{2n}{3n}\right)^{-6} = \underline{\left(\frac{27}{4096}\right)}$
- 16)  $\frac{7m^{-4}}{2m^9} = \underline{\frac{7}{2m^{13}}}$