

EXPONENT WORKSHEET

SIMPLIFY EACH PRODUCT:

1) $10^{12} \cdot 10^{35} =$

2) $c^3 \cdot c^8 =$

3) $x^{2e} \cdot x^{8e} =$

4) $w^{103} \cdot w^{1030} =$

5) $a^6 \cdot b^5 =$

6) $10^a \cdot 10^b =$

~~7) Solve for x: $(3^4)(3^x) = 3^{10}$~~

SIMPLIFY EACH PRODUCT:

8) $(2x^2)(4x^3y^2) =$

9) $(-3a^2b)(6ab^4c) =$

10) $(11c^8)(-10c^4d) =$

11) $(9x^{10}z^2)(-x^5y^3) =$

12) $(1.3a^6b^{11}c^5)(0.5a^2bc^3) =$

13) $(a^x b^y c^z)(a^t b^s c^t) =$

SIMPLIFY EACH EXPRESSION:

14) $(x^2)^3 =$

15) $(w^{-21})^{-15} =$

16) $(5^2)^3 =$

17) $(-y^5)^4 =$

18) $(4y^3)^2 =$

19) $(-3h^9)^3 =$

20) $(3y^6)^2 (x^5 y^2 z) =$

21) $(4h^3)^2 (-2g^3h)^3 =$

SIMPLIFY EACH QUOTIENT AND THEN FIND THE VALUE OF THE RESULT:

~~22) $\frac{2^{y+1}}{2^y} =$~~

~~23) $\frac{8^{r+4}}{8^{r+1}} =$~~

SIMPLIFY EACH EXPRESSION:

$$24) \left(\frac{x}{y}\right)^6 =$$

$$25) \left(\frac{5c}{d^2}\right)^2 =$$

$$26) \left(\frac{4d^3}{c^5}\right)^3 =$$

$$27) \left(\frac{-4s^6}{t^3r^5}\right)^3 =$$

$$28) \left(\frac{-2d^{11}f^6}{c^{18}}\right)^2 =$$

$$29) \left(\frac{2d^4}{4e}\right)^3 =$$

$$30) \frac{6r^3}{2r} =$$

$$31) \frac{-40s^6}{20s^3} =$$

$$32) \frac{21d^{18}e^5}{7d^{11}e^3} =$$

$$33) \frac{-16w^7r^2}{-4wr} =$$

$$34) \frac{a^5b^5c^5}{-a^2b^3c^4} =$$

$$35) \frac{4.2x^4y^{14}}{0.6x^9y^5} =$$

$$36) \left(\frac{-24t^6}{8t^3}\right)^5 =$$

$$37) \left(\frac{d^{11}f^{16}}{d^6f^6}\right)^3 =$$

$$38) \left(\frac{7d^2}{14d^4}\right)^5 =$$