

Exponents – Putting It All Together

Score _____ Per _____

Write each expression as a single power with a positive exponent.

1. $(w^4)^{-3}$

2. $(2^{-3})^{-5}$

3. $\frac{6^5}{6^{-2}}$

4. $m^{-3} \cdot m^6$

5. Jeb wrote $\frac{2^2}{2^5}$ in simplified exponent form as 2^3 . Is Jeb's answer correct? _____ Explain. _____6. $1,783,482^0$ is equal to _____.7. What is the difference between $(-10)^0$ and -10^0 ? _____

Write each expression in simplest form. All numbers should be evaluated and all variables should have positive exponents.

EX: $(3^2 \cdot x^{-2})^2 = 3^4 \cdot x^{-4} = \frac{3^4}{x^4} = \left(\frac{81}{x^4}\right)$ or $(3^2 \cdot x^{-2})^2 = \left(\frac{3^2}{x^2}\right)^2 = \frac{3^4}{x^4} = \left(\frac{81}{x^4}\right)$

8. $2^2 \cdot 2^{-6}$

9. $\frac{1}{4^{-3}} + n^0$

10. $(5^{-2})^3$

11. $(5^2 m^3)^{-1}$

12. $\frac{4^{-2}}{4^3}$

13. $\frac{c^{-6}}{c^{-2}}$

14. $(3x^{-4}y^4)^3$

15. $\frac{2m^3n^4}{m^4}$

16. $\frac{2a^{-3}b^4}{4b^7a}$

17. $4a^2b^2 \cdot 2a^{-3}b^2$

18. $4x^0y^{-3} \cdot yx^3$

19. $(x^4y^4 \cdot 2y^{-4})^0$