

1. Write the given expression in exponential form: (2 pt) **b•e•s•e•b•t•t•e•25**

#2-10, Simplify each

2. $(-3)^2$

3. $12x^{-4}$

4. $M^4 \cdot M^{10}$

5. $\frac{y^{11}}{y^{18}}$

6. $7s \cdot -2s^3$

7. $(3HO)^0$

8. $(5x^2)^3$

9. $\frac{4x^{-2}y}{-3xy^{-7}}$

10. $\frac{4b^9c^5}{16bc^6}$

#11-13, Write each in scientific notation.

11. 567,800,000,000

12. 0.000012

13. 125800

#14-16, Write each in decimal form.

14. 7×10^{-2}

15. 7.08×10^8

16. 3.45×10^{-4}

#17-20, Simplify more advanced expressions.

17. $\left(\frac{9x^5}{y^{-2}}\right)^{-2}$

18. $(7a^5b)(3a^3b^4)^2$

19. $\left(\frac{rs}{r^{-3}s^2}\right)^3$

20. $\left(\left(\frac{4}{m^3}\right)^2\right)^{-3}$

#21-24, Figure out what number the ? represents.

21. $6^? = 1296$

22. $m^? \cdot m^4 = m^{20}$

23. $(x^2)^? = x^{26}$

24. $?^3 = -27$

25. Write a math expression that can simplify to $2m^2n^3$