ALGEBRA 1 CHAPTER 6 REVIEW

Simplify.

1. $b^{4}•b^{5}$ 2. $a^{2}•(a^{3}b^{2})^{13}$ 3. $w•w^{8}•w$

4. $\frac{2}{5d^{-5}}$ 5. $(h^{4}g^{2})^{7}$ 6. $(2s^{4})^{3}•(3a^{9})^{3}$

7. $\left(\frac{1}{9}\right)^{-2}$ 8. $4^{9}•4^{-6}$ 9. $2(2)^{-3}$

10. $y^{-9}$ 11. $\left(\frac{5}{3}\right)^{-3}$ 12. $12^{-2}$

13. $\frac{3}{4k^{-5}yp^{-2}}$ 14. $\frac{4m^{-4}x^{5}}{14y^{2}}$ 15. $\left(-5w^{4}x^{2}\right)\left(3w^{10}\right)\left(2wx^{5}\right)$

16. $\left(\frac{5}{6}\right)^{2}$ 17. $\frac{y^{8}}{y^{9}}$ 18. $\left(\frac{2}{n}\right)^{6}$

19. $\frac{f^{-3}}{f^{4}}$ 20. $\frac{g^{-2}}{g^{-3}}$ 21. $7r^{-6}•r^{2}•5r^{4}$

22. $37r^{0}$ 23. $x^{-12}$•$3x^{4}$ 24.$ (3n)^{3}$

25. $\frac{x^{12}}{x^{3}}$ 26. $\left(\frac{8b}{9r}\right)^{2}$ 27. $x^{-3}y^{7}$

28. $\left(\frac{3m^{-2}m^{-4}}{2mn^{3}}\right)^{4}$ 29. $\left(\frac{7x^{2}y^{4}}{x^{8}y^{5}}\right)^{-3} $ 30. $\frac{3x^{2}y^{-3}}{7z^{3}w^{-7}}$

31. $(s^{2}j^{-6}s^{-4})^{-2}$ 32. $\frac{\left(3v^{5}a\right)\left(15a^{4}v^{2}\right)}{\left(5a^{2}v^{6}\right)}$

Solve the equation.

33. $7^{3x}$ = $7^{2x-7}$ 34. $25^{2x-3}$ = $125^{x+1}$ 35. $\frac{1}{27}$ = $9^{2x+7}$

Simplify the expression.

36. $\sqrt[3]{64}$ 37. $\left(\frac{1}{81}\right)^{^{1}/\_{4}} $ 38. $100^{^{3}/\_{2}}$ 39. $\left(-8\right)^{^{2}/\_{3}}$ 40. $\left(64\right)^{^{5}/\_{3}}$

Decide whether the sequence is arithmetic, geometric, or neither. If it is arithmetic or geometric list the next four terms in the sequence.

41. 2, 4, 6, 8, . . . 42. 5, -10, 20, -40, . . .

43. 4, 9, 16, 25, . . . 44. -64, -32, -16, -8, . . .