Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period\_\_\_\_\_

Quiz Review Sec. 1.4 – 1.6

Simplify.

1. $\left(6x^{4}y^{3}\right)^{3}$ 2. $\left(8x^{4}y^{-3}\right)\left(-2x^{-7}y\right)$ 3. $\left[\left(x^{3}\right)^{2}\right]^{4}$

4. $\frac{20x^{3}y^{-7}}{10x^{-5}y^{2}}$ 5. $\left(4a^{5}b^{7}c^{-4}\right)^{2}$ 6. $\left(7y^{4}\right)^{3}$

7. $\frac{22x^{-4}y^{7}z^{-8}}{24x^{-3}y^{-4}z^{2}}$ 8. $\left(3x^{2}y^{-7}\right)^{2} \left(2x^{5}y^{2}\right)$

9. $\frac{x^{-5}y^{7}z^{6}}{x^{2}yz^{2}}$ 10. $\left(6x^{4}y^{-3}\right)\left(5xy^{2}\right)$

Write each number in standard form.

11. $4.07 x 10^{4}$ 12. $3.1 x 10^{-3}$ 13. $4.01 x 10^{2}$

Write each number in scientific notation.

14. $0.000601$ 15. $340,000$ 16. $40,700,000$

Simplify

17. $\left(-3x^{4}y^{5}z^{-3}\right)^{2}\left(6x^{-6}y^{-3}z^{-1}\right)^{2}$

18. $\left[\frac{4x^{3}y^{-5}z^{4}}{5x^{5}y^{-7}z^{-2}}\right]^{-2}$