

7-4 Division Properties of Exponents

Simplify each expression completely. Leave your answer in fraction form, if necessary. (1 pt each)

1. $\frac{a^2}{a^4}$

2. $\frac{2x^2y^4}{3x^3y^2}$

3. $\left(\frac{c}{2c^0}\right)^2$

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

5. $\frac{(x^2y^2)(-2y^7)}{(xy^4)(14y^2)}$

6. Simplify the expression. Write your answer in scientific notation.

$$\frac{3.066 \times 10^8}{7.3 \times 10^3}$$

(2)

7. The population of Earth is about 6.6468×10^9 . Land surface of Earth is about 0.573×10^8 square miles. What is the population density for the surface area of the Earth, in people per square mile? Write your answer using scientific notation.

(2)