

Scientific Notation Day 2

Do Now:

This headline appeared in a newspaper.



**Every day 7% of Americans
eat at Giantburger restaurants**

Decide whether this headline is true using the following information.

- There are about 8×10^3 Giantburger restaurants in America.
- Each restaurant serves about 2.5×10^3 people every day.
- There are about 3×10^8 Americans.

Explain your reasons and show clearly how you figured it out.

Multiplying With Scientific Notation Steps: (write as fraction if not already)

1. Multiply the Numbers using Laws of Exponents
2. Make sure answer is in proper scientific notation

Ex 1) $(4.6 \times 10^4) \bullet (2.3 \times 10^9)$ Ex 2) $(3.7 \times 10^5) \bullet (7.4 \times 10^8)$

Ex 3) $(3 \times 10^7) \bullet (8 \times 10^4)$ Ex 4) $(9.1 \times 10^{-2}) \bullet (3 \times 10^6)$

Dividing With Scientific Notation

Steps: (write as fraction if not already)

1. Divide using Laws of Exponents
2. Make sure answer is in proper scientific notation

$$\text{Ex 1)} \quad (4.6 \times 10^4) \div (2.3 \times 10^9) \qquad \text{Ex 2)} \quad (3.7 \times 10^5) \div (7.4 \times 10^8)$$

$$\text{Ex 3)} \quad (3 \times 10^7) \div (8 \times 10^4) \qquad \text{Ex 4)} \quad (9.1 \times 10^{-2}) \div (3 \times 10^6)$$

$$\text{Ex 5)} \quad (4 \times 10^4) \div (1 \times 10^2) \quad \text{Ex 6)} \quad (8.2 \times 10^{21}) \div (4.1 \times 10^{11})$$

Word Problem: In 2006, the Gross Domestic Product (GDP) of the US was approximately 1.4×10^{13} dollars. The population of the US in 2006 was about 3×10^8 . Calculate the GDP per person of the US in 2006, and be sure your answer is in Standard form.