

# 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  $8 \times 10^3$  Giantburger restaurants in America.
- Each restaurant serves about  $2.5 \times 10^3$  people every day.
- There are about  $3 \times 10^8$  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

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

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

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

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