

# Scientific Notation



## Overview of problems



Example Set: A

Write the number in scientific notation

43,800

.0006921

167,354,000

18.2

.00000314



Example Set: B

Write the number as a decimal

$1.2 \times 10^6$

$5.039 \times 10^{-5}$

$6.21 \times 10^4$

$8.74 \times 10^{-3}$



## Example Set: C

Evaluate the expression. Write your answer in scientific notation

$$40,000 \cdot 620,000$$

$$.00075 \cdot 89,000$$

$$(2.63 \times 10^{-4})^2$$

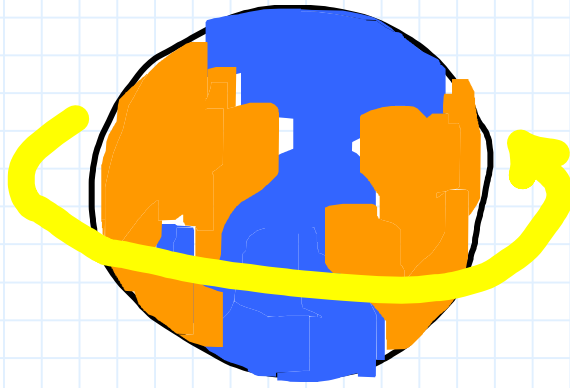
$$\frac{350,000 \cdot 15,000}{.0002}$$



## *Example Set: D*

*How many times could a light beam travel around the earth in one minute?*

*Assume: speed of light 186,000 miles per second,  
Earth's circumference 24,900 miles.*



# Scientific Notation



## Overview of problems- KEY



Example Set: A

Write the number in scientific notation

43,800

$$4.38 \times 10^4$$

.0006921

$$6.921 \times 10^{-4}$$

167,354,000

$$1.67354 \times 10^8$$

18.2

$$1.82 \times 10^1$$

.00000314

$$3.14 \times 10^{-6}$$



Example Set: B

Write the number as a decimal

$$1.2 \times 10^6$$

1200000

$$5.039 \times 10^{-5}$$

.00005039

$$6.21 \times 10^4$$

62100

$$8.74 \times 10^{-3}$$

.00874



## Example Set: C

Evaluate the expression. Write your answer in scientific notation

$$40,000 \cdot 620,000 = 2.48 \times 10^{10}$$

$$.00075 \cdot 89,000 = 6.675 \times 10^1$$

$$(2.63 \times 10^{-4})^2 = 6.9169 \times 10^{-8}$$

$$\frac{350,000 \cdot 15,000}{.0002} = 2.625 \times 10^{13}$$



## Example Set: D

*How many times could a light beam travel around the earth in one minute?*

*Assume: speed of light 186,000 miles per second,  
Earth's circumference 24,900 miles.*

448 orbits

