Name _____ Date _____

Scientific Notation Multiplication and Division - Guided Lesson Explanation

Explanation#1

$(1.11 \times 10^2)\ (2.10 \times 10^3)$

Rearrange the problem to put the constants and powers of ten together.

$=(1.11 \times 2.10)\ (10^2 \times 10^3)$ Multiply constants.

$=2.331 \times 10^{2+3}$ Multiply powers of ten by adding.

$= 2.331 \times 10^5$

Explanation#2

$(7.26 \times 10^5) \div (2.6 \times 10^3)$

Rearrange the problem to put the constants and powers of ten together.

$= (7.26 \div 2.6) \times (10^5 \div 10^3)$ Find the quotient of the constants.

$= 2.79 \times 10^{5-3}$ Find the quotient of the powers of ten by subtracting.

$= 2.79 \times 10^2$

Explanation#3

We follow the same exact strategy as we did in #2.

$(5.85 \times 10^5) \div (1.9 \times 10^3)$

$= (5.85 \div 1.9) \times (10^5 \times 10^3)$

$= 3.07 \times 10^{5-3}$

$= 3.07 \times 10^2$