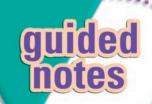
NAME

Module 11 Simplifying Algebraic Expressions with Polynomials

Lesson 2 Using Scientific Notation



Lesson Objectives

- Convert numbers between scientific notation and standard form.
- Multiply and divide numbers written in scientific notation.

Scientific notation is used for keeping track of place value in				
very large or very small numbers.				
A number is in scientific notation if it is written in the form $\underline{1}$ \leq				
$a < \frac{10}{n}$ and n is an integer.				
In scientific notation, small numbers are written with <u>negative exponents</u> ,				
and larger numbers are written with positive exponents .				
The number of meters in one micron is 1×10^{-6} . Write this number in				
standard form. 0.000001 meters				
There are 110,000 hairs on an average human head. Write this number in				
scientific notation. 1.1×10^5 hairs				
3 Each side of a square microchip is 9×10^{-3} m long. Find the area of the				
microchip. The area of the microchip is 8.1 $ imes$ 10 ⁻⁵ or 0.000081 square meters.				
The mass of Earth is 6×10^{27} g. The mass of the planet Pluto is				
1.3×10^{25} g. How many times greater is Earth's mass than Pluto's mass?				
Earth's mass is $4.6 imes 10^2$ or 460 times greater than Pluto's.				