I. Simplifying Properties (*continued*, pp.323-325):
   
   4. \( b^m \div b^n = b^{m-n} \)
   
   5. \( (a \div b)^n = a^n \div b^n \)
   
   6. \( b^0 = 1 \)
   
   7. \( b^{-n} = 1/b^n \)

II. Examples (pp.330-331): Problems #2-78(even)

III. Scientific Notation Revisited (p.327):

   numbers expressed in the form “\( a \times 10^n \)” where \( 1 \leq a < 10 \) and “\( n \)” is an integer...

   shorthand for very large/small numbers that contain a large number of zeros (often the case w/approximate numbers)...

   e.g.,
   
   4.6 \times 10^9 \text{ yrs} \quad \text{age of the Earth}
   
   2.99 \times 10^8 \text{ m/sec} \quad \text{speed of light}
   
   2.78 \times 10^{-10} \text{ m} \quad \text{H}_2\text{O molecule size}
IV. Converting (between standard* & scientific notation) move the decimal point “n” places...
   n > 0 for large numbers
   n < 0 for small numbers

Note: * the textbook refers to standard form as “expanded” form.

V. Examples (pp.331-333): Problems #82-108(even)

HW: pp.330-333 / Exercises #1-29(odd), 33-73(odd), 81-107(odd)

Read pp.335-340 (section 5.3)