1. [3 pts] Show meaningful work in finding two different numbers that satisfy the entire collection of clues below:
   * Rounded to the nearest whole number, the number is 505 (or 606, or 707, depending on your version).
   * No digits are repeated.
   * The digit in the hundredths position is three more than that in the 10^0 position.
   * No digits appear in the 10^{-3} position or smaller.

   For the ‘rounds to 505’ version, correct answers are 504.67, 504.87, and/or 504.97.

   For the ‘rounds to 606’ version, the correct answers are 605.78 and 605.98.

   For the ‘rounds to 707’ version, the correct answers are 706.59 and 706.89.

2. [1 pt] Name the smallest position occurring in the product of 1.2345 and 9.8765, explaining how we can tell WITHOUT counting any positions.

   The product must have a hundred millionths (or 100 millionths) position. Due to the Distributive Property, we are multiplying 5 ten thousandths and 5 more ten thousandths together, and \( \frac{1}{10,000} \times \frac{1}{10,000} = \frac{1}{100,000,000} \).

3. Consider the PARTIALLY-WRITTEN word problem below; note that it hasn’t asked a question yet:

   Eric bought 7.5 gallons of fuel for a total of $45.15.

   (a) [0.5 pt] Finish writing the problem by asking an appropriate question.

      The only appropriate continuation is to ask “How much did each gallon cost?”.

   (b) [0.5 pt] Which operation (addition, subtraction, etc.) and scenario (missing addend, take-away, etc.) does the complete word problem require?

      This word problem requires division, using the sharing/partitioning model.