Lesson: Estimation

Estimating or rounding is important for judging whether an answer makes sense, for checking the accuracy of calculations, and for getting an answer that is “close” when an exact answer is unnecessary.

Tips:
- The words *round*, *estimate*, or *about* tell you that an exact answer is not needed.
- Make computation easy by rounding to the nearest 10, 100, or 1,000. Some examples:
  - For $58 + 29$, think $60 + 30$.
  - For $498.75 - 119.05$, think $500 - 100$.
  - For $813 \times 377$, think $800 \times 400$.
  - For $12,190$ divided by $975$, think $12,000$ divided by $1,000$.

- The words of a problem will help you decide to which place you should round. If you are comparing car prices, thousands or hundreds works fine. If you were buying food, you would probably round to the nearest $1$.
- Fractions whose numerators and denominators are close together are close to 1: $7/8$, $9/10$, $13/15$. If they are far apart, the fraction is small: $1/12$, $2/15$, $3/20$.

Example Questions:

1. You work at a used furniture store. You sell a table for $57, four chairs for $22 each, and a bookshelf $33. Estimate the total.
   - A. $170
   - B. $110
   - C. $200
   - D. $100

The correct answer is A. You are rounding to the tens place with all three numbers to make them easier to add in your head.** Don’t forget to read carefully - there are 4 chairs, EACH of them is about $20.

Go to page 2 for another example.
2. If 18 million jobs are created in the United States next year, about how many jobs will need College or Apprenticeship skills?

The correct answer is C. The circle graph shows that 29% of the new jobs will require College or Apprenticeship. You need to estimate what 29% of 18 million is. You can find 29% of 18 million by doing the following problem: \(18 \times 0.29 = 5.22\). 5 million is the closest answer to 5.22 million.