Wild About Harry
Activity 1.1

The last *Harry Potter* novel has just arrived and by 11:00am, a line has formed outside the crowded bookstore. Knowing you have class at noon, you ask the guard at the door how long you can expect to wait. She provides you with the following information: She is permitted to let 6 people into the bookstore only after 6 people have left; customers are leaving at the rate of 2 customers per minute; and she has just let 6 new customers in. Also, each customer spends an average of 15 minutes browsing at books and 10 minutes waiting in line to check out.

Currently 38 people are ahead of you in line. You know that it is a 10-minute walk to your noon class. Can you buy your book and still expect to make it to your noon class on time? Use the following questions to guide you in solving this problem.
1. What was your initial reaction after reading the problem?

2. Have you ever worked on a problem such as this before?
3. Organizing the information will help you solve the problem.
   a. How many customers must leave the bookstore before the guard allows more to enter?
      6
   b. How many customers per minute leave the bookstore?
      2
   c. How many minutes are there between groups of customers entering the bookstore?
      3 mins
   d. How long will you stand in line outside the bookstore?
      21 mins
   e. Now finish solving the problem and answer the question: How early or late for your noon class will you be?
      \[21 + 15 + 10 + 10 = 56\text{ mins}\]
      line looking checking out walk
      \[4\text{ mins early}\]
4. In complete sentences, write what you did to solve this problem. Then, explain your solution to a classmate.

She was 4 minutes early to her noon class.

**Summary:**
Steps in Problem Solving
1. Read the problem and find key pieces of info.
2. Use pictures, graphs, charts, acting, math, etc.
3. Write answer in complete sentences.