The questions below are somewhat different from the questions you will get in the rest of the course. These exercises are meant to help to brush up your numerical skills, which you will be using in the rest of the course.

If you find these exercises very easy, please still come to section. Explaining things to others is one of the best ways to learn. If you find the exercises very difficult, please don’t give up. Your TA will explain the concepts in section.

1. Fractions and Percentages:
   (a) 300 is what percent of 2,000?
   (b) A town has 100,000 families; 0.1 of 1% of these families have income over $250,000 a year. The number of such families is ______.
   (c) There are 200 million eligible voters in the United States. The Gallup poll interviews 5,000 of them. This amounts to one eligible voter out of every _____.
   (d) In the United States, 1 person out of every 500 is in the navy, and one-sixth of naval personnel are officers. What fraction of the U.S. population consists of naval officers? Or can this be determined from the information given?

2. Squares and Square Roots:
   (a) \( \sqrt{100,000} \) is about
      (i) 30 (ii) 300 (iii) 1,000 (iv) 3,000
   (b) True or false: \( \sqrt{17/17} = 17/\sqrt{17} \).
   (c) True or false: \( \sqrt{1/2} \) is smaller than 1/2.
   (d) True or false: \((1/2)^2\) is smaller than 1/2.

3. Averages:
   (a) What is the average of 1, 2, 3, 4, 5?
   (b) What is the average of 1, -2, 3, -4 and 5?

4. Graphing a Line:
   (a) Draw the line \( y = 2x + 7 \)
   (b) Indicate whether the following points are above, on, or below the line: (1,8), (3,11), (2.5, 12), (0,6), (-1, 5)
   (c) Draw the line that goes through the point (3,4) and has slope -2
   (d) Look at the plot on the back. Find the slope of each line.
   (e) Draw a line through the “+” and the “*”. What is the slope of that line?