The exercises below are designed to be done mentally. Don’t cheat by using a calculator or paper and pencil the first time, but you may want to use paper and pencil or a calculator to see how close your estimates are.

1. Approximate the amount of each square that is shaded. Show your answer as a percent and as a fraction.

   ![Square Diagrams]

   A. B. C. D.

2. Explain why each statement is not true.

   ![Fraction Diagram]

   A. One-half of this square is shaded. B. One-fifth of this square is shaded.

4. The selling price of a house was $158,900. If the home is reduced in price by 5%, estimate the new selling price. Explain your logic.

5. A salesman gets a commission of 25%. If her total sales for a month were $14,150, estimate her commission. How did you arrive at this number?

6. A customer decides to leave the staff a 20% tip on the entire cost of the dinner. If the cost of the dinner is $425.50, estimate the tip. How did you select your number?

7. A company decided to give bonuses to about 1/6 of its employees. If there are 178 employees, about how many received a bonus? Explain.

   Perform the following computations mentally.

   A. Find 1/2 of 450. B. Find 1/3 of 450. C. Find 5/6 of 300. D. Find 1/5 of 300.
   E. Find 5/7 of 140. F. Find 3/4 of 800.
   G. Find 20% of 120. H. Find 70% of 800. I. Find 25% of 56.
   J. Find 90% of 200. K. Find 10% of 880. L. Find 5% of 200.

   Approximate:

   M. Find 1/2 of 811. N. Find 1/4 of 207. O. Find 2/3 of 659.
   P. Find 1/7 of 138. Q. Find 5/6 of 181. R. Find 9/10 of 298.
   S. Find 21% of 801. T. Find 81% of 700. U. Find 52% of 700.
   V. Find 11% of 808. W. Find 66% of 300. X. Find 34% of 602.
   Y. Find 74% of 101. Z. Find 9% of 808.