

# Valentine's Day Math

1. Melanie has purchased five special valentines that she wants to give to her close friends and family. The cards cost \$1.25, \$1.75, \$2.00, \$1.65, and \$2.50. She also plans to give away two boxes of candy: one costs \$6.95 and the other costs \$3.50.
  - a. How much money will Melanie spend for Valentine's Day? \_\_\_\_\_
  - b. Melanie has \$25.00 in her piggy bank at home and \$100.00 in the bank. Will she need to take some money out of the bank? If so, how much? \_\_\_\_\_
  - c. If Melanie doesn't need to remove money from her bank account, how much money will she have left in her piggy bank? \_\_\_\_\_
  - d. How much money will Melanie have left after Valentine's Day? \_\_\_\_\_

2. There are 30 students in Mrs. Miller's sixth-grade class. There are 10 girls. Each child puts his/her name on a slip of paper and puts it in a Valentine's box. Two names will be drawn from the box and each child will receive a box of candy.
  - a. What is the probability that a boy's name will be drawn from the box first? (Give a fraction, a ratio, and a percentage.) \_\_\_\_\_
  - b. Assuming that the first name selected is the most probable sex, what is the probability that a girl's name will be selected the second time? (Give a fraction, a ratio, and a percentage.)  
\_\_\_\_\_

3. Philip has a limited supply of red construction paper at home, and he is supposed to cover a shoebox (including the top) and have a one-inch overlap inside the top and bottom of the box. The shoebox is six inches wide, 12 inches long, and 4 inches high. The top is half an inch high.
  - a. How much paper (in square inches) will it take to cover the box (outer surfaces and overlap area)? \_\_\_\_\_
  - b. Philip has 4 sheets (8 ½" x 11") of red construction paper. Does he have enough to cover the box? \_\_\_\_\_
  - c. If so, how much extra paper does he have? \_\_\_\_\_
  - d. If not, how much more paper does he need? \_\_\_\_\_

Valentine's Day Math Answer Key

1. a. \$19.60 b. no

c. yes—\$5.40 d. \$105.40

2. a.  $\frac{2}{3}$ ; 2:1; 67%

b.  $\frac{10}{29}$ ; 10:19; 34.5%

3. a. 396 sq. inches c. no answer required

b. no d. 22 square inches