

- I. After half the season a basketball player had made 54 out of 75 free-throw attempts.
1. What is her free-throw percentage?
  2. How many consecutively made free-throws beyond that point would bring her percentage to 75%?
  3. How many free-throws out of the next 70 free-throws would she have to make beyond that point to bring her percentage to 80%?
- II. A basketball player scored a total of 13 points. Write an equation to model that fact and determine the number of ways that can be accomplished. (Note: 3 pt, 2 pt, and 1 pt baskets can be scored)
- III. A softball player hits a homerun over a 25 foot fence down a left field line that measures 210 feet along the ground. Assuming that the ball was hit at a point 2 feet above the ground, what is the minimum distance the ball traveled to clear the fence? Make a sketch and solve.
- IV. Find the speed of each quarter horse in miles per hour a) *Mathador*: 330 yards in 16.33 sec, or b) *Poetic*: 350 yards in 17.18 sec. Which horse ran at a faster rate?
- V. Golden Gate Fields in Albany, CA is a 1-mile oval horse racing track with 1382 feet straightaways.
1. Find the radius of the turns.
  2. How long is one lap run 40 feet from the inside rail of the track?
- VI. An angler caught a trout that had a length of 24 inches and a girth of 17 inches. Find the approximate weight of the fish. (Note: the constant for a trout is 900.)
- V. In an attempt to estimate the weight of white-tail deer, a hunter uses the same formula for estimating the weight of trout. He discovers that the formula give weights are much too small. Explain why this happens and discuss what should be done to get a more accurate formula.