

### Module 1.0: Softball vs. Baseball

- 1. Which of the following would NOT support the function of Softball?
  - a. Size/shape
  - b. Materials
  - c. Color
  - d. Texture
- 2. True or False: The Venn diagram is a good tool to compare and contrast a softball and baseball's properties.
- 3. To best understand the function of softball, baseball, golf ball and tennis ball, which is most important:
  - a. Internal properties
  - b. Close observation
  - c. Physical properties
  - d. Each of the above

#### Module 2.0: Evolution of a Softball Glove

- 1. True or False: Adding padding to the glove to protect a player's hand from a high energy throw/ pitch is an example of technology.
- Fill in the blank: The first softball glove was designed for \_\_\_\_\_\_ versus today's gloves that are designed more for \_\_\_\_\_\_.
  (performance or protection)
- 3. Bonus: The earliest softball glove was:
  - a. A catcher's mitt
  - b. A baseball glove
  - c. A hockey glove
  - d. A rolled-up boxing glove





### Module 3.0: Forces in Softball

- 1. Fill in the blank: A line drive in softball has \_\_\_\_\_\_ energy than a ground ball.
  - a. Less
  - b. The same
  - c. More
  - d. Decreased
  - 2. Fill in the blank: Gravity affects the ball \_\_\_\_\_\_ with a full swing than a bunt. (more or less)
  - 3. True or False: Swing angle affects the motion of the ball.

#### Module 4.0: Is it a Ball or Strike?

- 1. Which of the following is NOT an example of Energy and Speed.
  - a. A ball rolling
  - b. A car changing speeds
  - c. A pitcher changing speeds
  - d. A player catching the ball
- 2. Which of the following is correct (< >)?
  - a. 40% Strikes > 60% Balls
  - b. 47 mph > 53 mph
  - c. 84 mph < 78 mph
  - d. 68% Strikes > 32% Balls
- 3. True or False: A pitcher that throws with more speed will be more accurate.





#### Module 5.0: The Field of Play

- 1. A softball field includes the following:
  - a. Line segments
  - b. Angles
  - c. Parallel and Perpendicular lines
  - d. Points
  - e. None of the above
  - f. All of the above
- 2. Fill in the blank: There are \_\_\_\_\_\_ angles in triangles and squares. (common or uncommon)

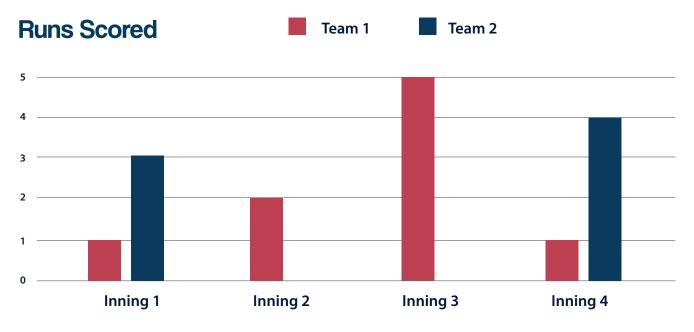
#### Module 6.0: Be a Hitter!

1. Which player was most successful at the plate?

Player 1	3/10
Player 2	6/10
Player 3	4/10
Player 4	2/10

- 2. Which mathematical expression is true about how successful each player was based on the data table in question 1?
  - a. Player 3 < Player 2
  - b. Player 4 > Player 3
  - c. Player 1 < Player 2
  - d. Player 2 < Player 4
- 3. If a player has a 5/10 chance of hitting a home run, how many hits will he/she get if they try 20 times?
  - a. 12
  - b. 10
  - c. 8
  - d. 20





#### Module 7.0: Keeping Score

- 1. Based on the below bar graph, which team had the most runs over four innings?
  - a. Team 1
  - b. Team 2
- 2. Based on the above bar graph, what is the total number of runs Team 2 scored over the four innings?
  - a. 7
  - b. 2
  - с. б
  - d. 12
- 3. Bonus: True or False: A softball game is only seven innings instead of nine innings in a baseball game.





#### Module 8.0: Advancements in Softball

- 1. True or False: Technology, such as instant replay, has had both a positive and negative impact on the game of softball.
- 2. Which of the following is part of the Engineering Design Process?
  - a. Criteria and Constraints
  - b. Brainstorming
  - c. Improvements
  - d. Asking questions
  - e. All of the above
  - f. None of the above
- 3. Bonus: True or False: The MLB (Major League Baseball) Replay Command Center is located in New York.





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