

BIG Basketball News

Name _____



Directions: Answer the following questions pertaining to the movie BIG and to basketball. Please show your work.

1.
 - a) If Larry Bird scores 10 point in the first quarter of a basketball game, and he continues to score in this manner for the entire game, how many points in total will he score?
 - b) If Larry scores x points in the first quarter, and he continues to score in this manner for the entire game, how many points in total will he score?
 - c) If Larry scores m points in the first quarter, and increases his quarterly score by 3 points in each of the remaining quarters, how many points in total will he score?

2. In Professional Basketball, a game lasts for 48 minutes.
 - a) If Allen Iverson averages 42 minutes of playing time per game, how many minutes will he play in a season consisting of 82 games.
 - b) Express the number of minutes Allen will play if the season consists of n games.
 - c) If Allen is injured and his average playing time for the season is decreased by 25%, how many minutes will he play if the season consists of g games?

3. Carmelo Anthony earns a yearly salary of \$15,779,912.
 - a) If his salary is increased by \$5,000 for each game in which he scores at least 25 points, find his new salary if he scores 25 or more points in half of the 82 games for the season.
 - b) Write an expression for determining his new salary if he earns s -dollars for each game where he scores 25 or more points in g -games.

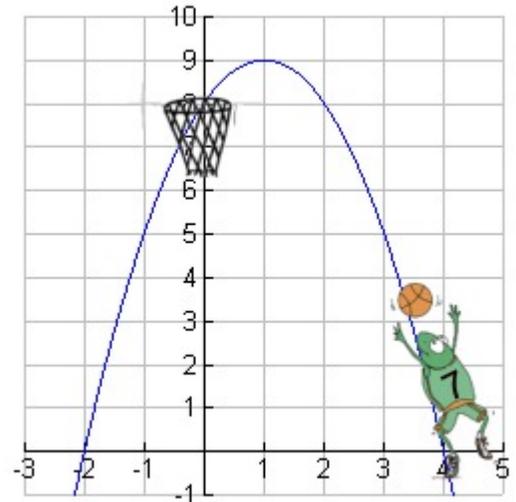
4. LeBron James scores the same number of free throw shots (1 point) as he does 2-point shots, and half this number of 3-point shots. If the total of his points scored during the game is 27, how many of each type of shot did he make?

5. The famous Frog Team player, Herman, sinks the first basket of the season, as shown in the graph. If Herman's ball follows the path of the parabola $y = -x^2 + 2x + 8$,

a) find the height of the basket, if it is located on the y-axis, and the scale is in inches.

b) how far away from the y-axis is Herman standing when he makes his shot, in inches?

c) find the maximum height reached by Herman's shot. Based upon the equation of the parabola, explain how you know your answer is the maximum height.



6. In the movie *Big*, 13-year old Josh Baskin makes a wish on a Zoltar machine and awakens the next morning as an adult.

a) As a 13-year old, Josh could shoot a basketball a distance of 12 feet. As an adult, Josh can shoot the ball a distance of 30 feet. What percent of increase was obtained in his shooting abilities as an adult?

b) If Josh's shooting distance is proportional to his age as a 13-year old, how far will he be able to throw the ball, to the *nearest tenth* of a foot, when he is 16-years old?

c) The probability that a Zoltar machine may actually grant a person's wish is listed as 1 out of 18. If 54 people make a wish on the machine, how many wishes may actually come true?