

## Basketball Box & Whisker Plots

The following tables contain the 2012 Season Points Scored Per Game as of November 10, 2012 for LeBron James, Carmelo Anthony and Rajon Rondo.

**Create a comparison Box and Whisker Plot for these 3 players and answer the questions that follow. For the number line on the Box and Whisker Plot, use increments of 2 points.**

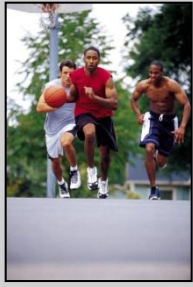
<b>Lebron James</b>	
Date of Game	Points Scored Per Game
11/9	21
11/7	20
11/5	23
11/3	20
11/2	23
10/30	26
10/26	19
10/24	13
10/23	10
10/18	13
10/14	11
10/11	20
10/7	10

<b>Carmelo Anthony</b>	
Date of Game	Points Scored Per Game
11/9	31
11/5	21
11/4	27
11/2	30
10/24	15
10/22	23
10/19	24
10/13	23
10/11	17

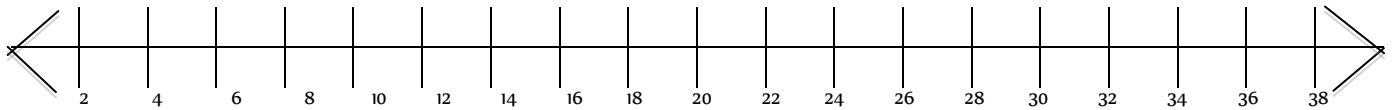
<b>Rajon Rondo</b>	
Date of Game	Points Scored Per Game
11/9	14
11/7	18
11/3	12
11/2	14
10/30	20
10/21	12
10/20	13
10/18	14
10/16	5
10/15	4
10/13	9
10/7	17
10/5	13

1. Which player scored the greatest range of points and what was the range?
2. Compare the interquartile ranges for LeBron James and Rajon Rondo.
3. Compare the median points scored for LeBron James and Carmelo Anthony.
4. Which player has scored 23 points or more half of the time?
5. Which player scored between 11 and 16 points about half of the time?
6. Which player has scored between 10 and 12 points 25% of the time?
7. Compare the upper quartiles for all three players.
8. If you were a general manager of a basketball team, which player would you want on your team and why? Explain your choice by giving several generalization statements that can be made by looking at the data.

Source of data: November 10, 2012  
[http://www.nba.com/playerfile/carmelo\\_anthony/game\\_by\\_game\\_stats.html](http://www.nba.com/playerfile/carmelo_anthony/game_by_game_stats.html)  
[http://www.nba.com/playerfile/lebron\\_james/game\\_by\\_game\\_stats.html](http://www.nba.com/playerfile/lebron_james/game_by_game_stats.html)  
[http://www.nba.com/playerfile/rajon\\_rondo/game\\_by\\_game\\_stats.html](http://www.nba.com/playerfile/rajon_rondo/game_by_game_stats.html)

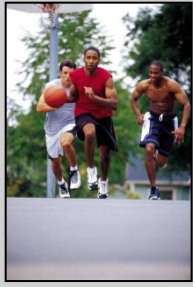


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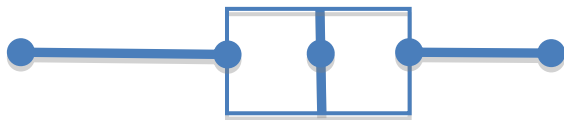


Answer Key

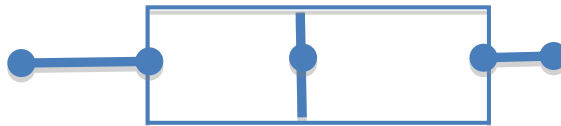
1. Which player scored the greatest range of points and what was the range?  
All three players have a range of 16 points.
2. Compare the interquartile ranges for LeBron James and Rajon Rondo.  
Lebron's interquartile range is 10 points while Rajon's interquartile range is 5 points. LeBron's interquartile range is 5 points greater than Rajon's. LeBron has more variation in his scoring according to the interquartile range.
3. Compare the median points scored for LeBron James and Carmelo Anthony.  
Carmelo's median points scored is 3 points more than LeBron's.
4. Which player has scored 23 points or more half of the time?  
Carmelo Anthony (third and fourth quarters)
5. Which player scored between 11 and 16 points about half of the time?  
Rajon Rondo (second and third quarters)
6. Which player has scored between 10 and 12 points 25% of the time?  
Lebron James (first quarter)
7. Compare the upper quartiles for all three players.  
Lebron's upper quartile is 22 points. Carmelo's upper quartile is 28.5 points. Rajon's upper quartile is 15.5 points. Carmelo's is the greatest and is 13 points greater than Rajon, who has the lowest upper quartile.
8. If you were a general manager of a basketball team, which player would you want on your team and why? Explain your choice by giving several generalization statements that can be made by looking at the data.  
Answers may vary but some general statements may include comparing the medians, quartiles, or who has a greater chance of scoring more points based on this limited data.



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(Rajon)



(Carmelo)



(Lebron)

