



Problem of the Week

Problem B and Solution

Hoops Data

Problem

At the time of writing, Kyle Lowry plays basketball with the NBA Champions, the Toronto Raptors. At one point he had played 805 career games. Here are some questions related to his performance in those games.

- If he started in 569 games, in what fraction of the games did he start?
- In a typical 48 minute game, he averaged playing 31.1 minutes. What fraction of each game did he play?
- He scored an average of 14.5 points per game. How many points, on average, has he scored per minute he played in a game? Express your answer as a decimal to the nearest hundredth (i.e., two decimal places).
- Over his career, he made, on average, 43 of 100 shots he took. Based on his past performance, if he took 11 shots in a particular game, how many of these 11 shots would you expect him to make?

For Further Thought:

Try comparing his performance to that of another NBA player by researching their data at the website <https://www.basketball-reference.com/>.

Solution

- He started in 569 of the 805 games, that is $\frac{569}{805}$ of the games. Expressed as a decimal to two decimal places, $\frac{569}{805} \approx 0.71$, so this represents 71% of the games he played.
- He played 31.1 minutes out of 48 minutes each game, that is $\frac{31.1}{48} = \frac{311}{480}$ of each game. Expressed as a decimal to two decimal places, $\frac{311}{480} \approx 0.65$, so this represents 65% of each game.
- He scored an average of 14.5 points per game played and played an average of 31.1 minutes in a game. Therefore, he scored $14.5 \div 31.1 \approx 0.47$ points per minute played.
- He made, on average, 43 of the 100 shots he took. If he took 11 shots, we would expect him to make $\frac{43}{100} \times 11 = 4.73$ shots (that is, we would expect him to make 4 or 5 shots).

For Further Thought: Answers will vary.

