

**8<sup>th</sup> Grade: Read and answer questions**

1. Suppose there are 20 games left in the season. The Giants are in 1<sup>st</sup> place in the NL West with 85 wins. The Rockies are in 2<sup>nd</sup> place in the NL West with 82 wins. If the Giants win 40% of their remaining games, and the Rockies win 60% of their remaining games, after how many games will the Rockies move into 1<sup>st</sup> place?

Will they do it before Game 162, the final game of the season?

2. Construct a scatter plot to investigate the relationship between the number of games the Rockies win and their home attendance. Data from the previous 15 seasons is shown in the table.

Year	Wins	Attendance (in millions)
2018	91	3.02
2017	87	2.95
2016	75	2.60
2015	68	2.51
2014	66	2.68
2013	74	2.79
2012	64	2.63
2011	73	2.91
2010	83	2.88
2009	92	2.67
2008	74	2.65
2007	90	2.38
2006	76	2.10
2005	67	1.91
2004	68	2.34

Informally fit a line to the data. How strong is the fit?

What seasons fit best?

What seasons fit worst?

What does your line predict attendance to be if the Rockies were to win 100 games?

3. Coming into the 2019 season, Charlie Blackmon had 140 career home runs and averaged 25 home runs for each 162 games played. (There are 162 games in a season.) Trevor Story had 88 career home runs and averaged 36 home runs for each 162 games played. If both players continue hitting home runs at the same pace and play full 162-game seasons, how long will it take before Story has more career home runs than Blackmon?

