

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

1. If a starting pitcher throws about 90 pitches per game, and pitches in about 32 games per season, about how many pitches per year will the pitcher throw?

How many pitches did our starting pitcher throw in the game today? If this is his average pitch count in 29 total games, how many will he throw?

2. Before 2019, Charlie Blackmon had played 920 games for the Rockies in 8 seasons. Todd Helton played 2247 games in 17 seasons, the most in Rockies history. If Charlie plays for the Rockies as long as Todd, how many games per season does he need to play to break Todd's record?
3. In a recent game, Trevor Story got 2 hits in 4 at-bats and Ian Desmond got 1 hit in 2 at-bats. Write Story's hits per at-bats and Desmond's hits per at-bats as fractions and compare them using a  $<$ ,  $=$ , or  $>$  sign. Draw a model of the fractions to justify your choice.

4. If German Marquez pitches  $\frac{2}{3}$  of a 9-inning game and Scott Oberg pitches the rest, how many innings does Scott Oberg pitch? How would you write that as a fraction of a 9-inning game?

Each team gets 27 outs in a 9-inning game. Can you see how many outs our starting pitcher got?

5. If Nolan Arenado gets 34 hits in his first 100 at-bats of the season, what would his batting average be?

How many hits does Nolan have in the season so far? Can you show how to get his average?

6. A player who has 1 hit in 2 at bats has a 0.500 batting average. If they get a hit in their next at-bat, doubling their hits from 1 hit to 2 hits, why doesn't their batting average double?

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What would their new batting average be?

7. Baseball bats weigh about two pounds, but their weight is usually measured in ounces. How many ounces does a two-pound bat weigh?

8. What is the angle formed by the baselines, with home plate as the common endpoint?