

Stat Star questions for May 2009 (WITHOUT answers)

Here is some baseball information which might be useful:

1. The distance between bases is 90 feet.
 2. The Sky Sox play 144 games in a full season
 3. A hitter's Batting Average (AVG) is: H / AB where H = number of hits and AB = number of 'at bats'. Batting Average is expressed as a decimal to three places of accuracy. So, for instance, if a player has 200 at-bats, and has 50 hits, then his Batting Average is $50 / 200 = .250$. [The idea expressed by AVG is: if the hitter bats 1000 times, how many hits would we expect him to get? About 250.]
 4. A pitcher's Earned Run Average (ERA) is: $(R / IP) \times 9$ where R = number of runs allowed and IP = number of innings pitched. Earned Run Average is expressed to two places of accuracy. So, for instance, if a pitcher has allowed 50 runs, and has pitched 150 innings, then his Earned Run Average is $(50 / 150) \times 9 = 3.00$ [The idea expressed by ERA is: if the pitcher pitches a lot of complete 9 inning games, how many runs would we expect him to allow each game? About 3.]
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- 1) From Brent at Swink School: Geovany Soto of the Chicago Cubs gets an average of 1.5 hits per game. He plays 80% of the Cubs' regular season games. How many hits does he have at the end of the season? [Hint: The Chicago Cubs play 162 games per season.]
 - 2) The Sky Sox play 144 games in an entire season. If their goal is to win at least 60% of their games this season, what is the least number of games they can win and still meet their goal?
 - 3) The Sky Sox will play 27 games in the month of April. They use an average of 16 baseballs per game. If a case of baseballs contains 12 balls, how many cases of baseballs will the Sky Sox use in April?
 - 4) After two men were out in the Sky Sox first inning, the Sky Sox hitters then got (in order) a double, a home run, three singles, a triple, and a strike out. How many runs did they score?
 - 5) If a player hits a home run, how far IN METERS does the player run? (Give answer to the nearest whole meter. Hint: 1 inch = 0.0254 meters)
 - 6) A few seasons ago, Sky Sox third baseman Ian Stewart hit three home runs in a game at Security Service field. The first one was hit to left field, 395 feet from home plate. The second one was hit to right field, 375 feet from home. The last one was a monster blast, it was hit to straight away center, 435 feet from home. At least how far total did these home runs go all together?
 - 7) From Matt Adler at Vera Scott Elementary: Last season, Cory Sullivan had 122 hits in 381 at bats. What was Cory Sullivan's batting average?

- 8) Suppose that after the first 40 games of the season, Sky Sox pitcher Franklin Nunez has struck out 26 batters. If he maintains this pace for the entire season, how many batters will Nunez have struck out by the end of the Sky Sox' season? (Give your answer to the closest whole number.)
- 9) Sky Sox third baseman Mark Bellhorn usually stands about 100 feet from home plate while he waits for the batter to hit the ball. If a batter hits a line drive right at Mark, and the ball takes $\frac{1}{2}$ second to get from the bat to the fielder's glove, how fast was the ball going? Give your answer in miles per hour. (The answer to this question gives you one reason why third base is sometimes called the "hot corner"!)