

# *Stat Star* questions for April 2009

## Answers

Here is some baseball information which might be useful in answering the questions:

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. ]

- 1) From Kaitlyn Erickson at Frontier Charter Academy: The first base bag is a solid rectangle, 15 inches long by 15 inches wide by 4 inches thick. What is the volume of first base?

15 INCHES 15 INCHES BY 4 INCHES. WHAT'S THE VOLUME?

Answer: 900 cubic inches

- 2) From Ryan Campbell at Kilmer Elementary: The Sky Sox play 144 games in an entire season. If the Sky Sox have 293 steals in the entire season, about how many steals per game do they have on average?

293 STEALS IN A SEASON. ABOUT HOW MANY STEALS PER GAME?

Answer: About 2 steals per game (exact answer: 2.0347 steals per game)

- 3) From CSCS East Campus: Christian Colonel triples down the right field line. What percent of a mile has he run? (Give your answer to the closest whole number percentage.)

HITTING A TRIPLE MEANS RUNNING HOW FAR AS A PERCENT OF A MILE?

Answer: 5% (more accurate answer: 5.11363%)

- 4) From Krystal Johnson, Edison School: During his entire 20 year career, Babe Ruth used a much heavier bat than most other players. Babe Ruth's bat weighed 52 ounces. How many pounds was Babe Ruth's bat?

52 OUNCE BAT IS HOW MANY POUNDS?

Answer: Babe Ruth's bat weighed 3.25 pounds.

- 5) From Pueblo West Elementary: The Sky Sox provide 3 cases of baseballs for each game. Each case of baseballs contains 24 balls. During one game, there were a total of 34 balls hit out of the stadium (both home runs and foul balls). 7 of those balls were thrown back onto the field. At the end of the game, how many balls did the Sky Sox have left?

24 BALLS PER CASE, 3 CASES, 34 BALLS OUT, 7 BALLS RETURNED. HOW MANY BALLS LEFT?

Answer: 45 balls.

- 6) The Sky Sox will play 27 games in the month of April. They use an average of 45 baseballs per game. If a case of baseballs contains 24 balls, how many cases of baseballs will the Sky Sox need for their April games?

27 GAMES, 45 BALLS PER GAME, 24 BALLS PER CASE. HOW MANY CASES?

Answer: 51 cases (exactly 50 cases plus 15 extra balls)

- 7) 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?

DOUBLE / HOMERUN / 3 SINGLES / TRIPLE = HOW MANY RUNS?

Answer: 5 runs.

- 8) 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)

ONCE AROUND THE BASES IS HOW FAR IN METERS?

Answer: 110 meters (exact answer: 109.728m)

- 9) 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?

60% OF 144 GAMES IS:

Answer: 87 games