

From Appendix D.:

### Why Nine Players on Each Team?

One day three guys were lounging around ye olde tavern, with nothing to do, so they decided to invent baseball. Let's call them Abner Doubleday, Alexander Cartwright, and Henry Chadwick because those were, in fact, their names.

They dithered about how many players would be in each team's line-up. Finally, Abner said, "I have a way to resolve this. We'll take a random number... say, my birth date (6/26/1819) without the slashes and parentheses. Then we'll scramble the digits good and proper to make a second random number (e.g., 8619261), and subtract the smaller from the larger. Like, 8619261 minus 6261819 equals 2357442. Am I going too fast?"

Alexander grunted and Henry groaned. "Good," Abner said. "Now let's sum the digits in that number:  $2+3+5+7+4+4+2 = 27$ . Next, we'll sum those two digits:  $2+7 = 9$ . So that's how many players we'll have on each team."

"Okay," Alexander yipped. "Now, I'll figure out how many innings we'll play. But I'm going to use *my* birth date instead. I was born on April 17, 1820. I'll shuffle that 4171820 to give me 2011874. So, 4171820 minus 2011874 gives me 2159946. I add those digits to get 36 and add those to get **9**. Wow, we're going to play nine innings.

Henry scowled. "Wait a minute. I don't trust you hornswogglers. Let me calculate using my birth date – October 5, 1824." He whipped up a jumbled version of 1051824 and hammered out the math.

"Holy mongoose, Hank!" Alexander shouted. "You came up with **9**, too. That cinches it. Nine it will be."

We are fortunate that they stumbled onto nine as the number of players on a team, because that is actually the correct number. To demonstrate this, we'll use the precise total number of players who have played in the majors and the Negro Leagues since that fateful tavern rendezvous: 19,623. We'll yank out the comma and rearrange that number (randomly, of course) to get 62193. Now we'll subtract: 62193 minus 19623 equals 42570. Summing these digits gives us  $4+2+5+7+0 = 18$  and  $1+8 = 9$ . QED.