Four new students come into Miss Strysick's math class. There are several empty seats in the classroom, and the first order of business is to figure out where the new students will sit. Miss Strysick says, "Without moving any of my current students, there are 360 different ways that the four of you can choose where to sit. The first one of you that can explain this will get to choose first, and then we'll go one at a time in alphabetic order for the other three".

**How many empty seats were there before the new students entered the classroom? Make sure you explain your solution.**