GAMESMAN SOLUTIONS

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Solution #1: No Bull
It is difficult to take the 17 oxen and divide them by two to give to the first son, by three to give to the second son, and by nine to give to the third son, so an aspiring mathematician borrowed an ox and brought it to the cattle farmer’s house. The total number of oxen now is 18 oxen and is divisible by two, three, and nine.

The first son will receive nine oxen, the second son is gifted six oxen, and the last son will get two oxen. The total number of oxen the three sons will get from their father is \( 9 + 6 + 2 = 17 \). We are left with one ox, and the mathematician will return the ox to the owner.

Solution #2: The Birthday Boy
To solve this problem, remember that a normal year (nonleap year) counts 52 weeks plus one spare day, thus only one day is repeated 53 times. While, in a leap year, days that are repeated 53 times are the first and the second day of the year, respectively. This information allows us to conclude that the first day of January was on Saturday and, taking into account that January has 31 days and February 29, the first day of March was on a Wednesday. Anthony was born on Wednesday, 1 March.

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Solution #3: Match Point

As a national team can’t play against itself, every team must play nine matches as local. Team number 1 has to play with teams numbered 2, 3, 4, ..., 10 (nine matches in total). Then, team number 2 has already played with team number 1, so it only must play against 3, 4, ..., 10 (eight matches in total). If we continue, we see that team number 6 plays with teams 7, 8, 9, and 10, because teams 1, 2, 3, 4, and 5 were already considered.

So, we add the matches of team 1, team 2, ..., team 9 (team 10 doesn’t have matches pending to play).

\[
\text{matches} = 9 + 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1 \\
\text{matches} = 45.
\]

Since games are played as both a local and a visitor, every match is repeated, so

\[
\text{total matches} = 45 \times 2 = 90.
\]

The number of matches played in the South American World Cup qualifiers is 90.

Solution #4: Time to Get a New Clock?

Considering that the arrow indicating the hour is stopped in the location of the 23rd minute, this means that it has completed 3/5 of the distance between minutes 20 and 25. Moreover, the fraction 3/5 of 1 h indicates 36 min, leading to the conclusion that the correct time is 4:36 p.m.

Solution #5: A Prime Situation

Notice that the sum of the last digit of these numbers is 4 + 6 = 10. This is an even number, so the smallest prime number required is 2.