

Problem of the Month - February 2024*

The current standings for the National Soccer League after 7 weeks of play are as follows:

Team	Wins	Losses	Draws	Points
Wildcats	6	1	0	18
Eagles	5	1	1	16
Sharks	3	2	2	11
Wolves	3	3	1	10
Panthers	3	4	0	9
Bulldogs	3	4	0	9
Rhinos	2	2	3	9
Bears	2	4	1	7
Rams	1	4	2	5
Gators	1	4	2	5

Table 1: Standings after week 7.

Each team has two remaining matches in the season (see Table 2), after which the champion will be declared on the basis of points.

Week 8	Week 9
Wildcats vs. Bulldogs	Rhinos vs. Wolves
Eagles vs. Rhinos	Eagles vs. Bulldogs
Panthers vs. Rams	Wildcats vs. Rams
Wolves vs. Bears	Gators vs. Panthers
Sharks vs. Gators	Bears vs. Sharks

Table 2: Week 8 and 9 match schedule.

Suppose that a win is worth 3 points, a loss is worth 0 points, and a draw is worth 1 point. From the current standings, it follows that the Wildcats and Eagles are the only teams in contention for the championship. In the case of a tie on points, the Eagles will be declared the champions since they previously beat the Wildcats during their Week 1 match. Assume that the Wildcats and Eagles have an equal chance of winning, losing, or drawing all of their remaining matches. What is the probability that the Eagles will be declared the champions at the end of the season?

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