

3.3 Second approach:

We know from 3.2 that 6 flips is the right threshold for 10 flips, and 12 flips is the right threshold for 20 flips

\therefore the ~~percentage~~ ^{percentage} is $\frac{6}{10} = 0.6 = 60\%$

the percentage for 20 flips is $\frac{12}{20} = 0.6 = 60\%$

Since they are all 60%

then for N flips, the threshold should be $60\% N$
which is $0.6 N$

3.4 : we know that from 3.2, the most chance of winning ^{for 10 flips} is 70.5%, And for 20 flips, the most chance of winning is 77.886%. So I don't know.