Problem 3: Press Your Luck

In a certain dice game, a player scores the total of series of rolls of a 6-sided dice provided a 1 is never rolled. The players are allowed to roll as many times as they like and stop whenever they like. What is the probability that a player will score 6 or more points in a single turn if that is the player's goal?

As always, show your work, fully explain and justify your answer.

Posting Date 9/25/16. Submit solutions to Noah Aydin, Mathematics Department, RBH 319 (e-mail or hard-copy, but hard copy submissions must include a time stamp) by 4 pm on 10/7/16.