You are dealt a card from a deck; its value is in the range 1 through 13 inclusive. You may stop with just one card, or have a second card if you want. Your object is to get a total as near as possible to 14, but not over 14. Your strategy is to take a second card if the first is under 7. Assuming each card value has equal probability,

(a) find the probability of each value of your total.

§ see book Subsection 5.7.0

(b) find the average value of your total.