5.)

1st Approach: Majority Vote: Since $^6/_{10} > 0.5 = \text{Red} \Rightarrow$ **Predict Red**

Bootstrapped Sample	P(class=Red|x)	Prediction
1	0.1	G
2	0.15	G
3	0.2	G
4	0.2	G
5	0.55	R
6	0.6	R
7	0.6	R
8	0.65	R
9	0.7	R
10	0.75	R

2nd Approach: Classify based on avg prob:

$$\overline{P(\text{Class is Red}|x)} = \left(\frac{1}{n}\right)\sum_i (P(\text{Class is Red}|x)_i$$

$$= \left(\frac{1}{10}\right)(0.1 + 0.15 + \ldots + 0.75)$$

$$= 0.45$$

Since avg $P(\text{Class} = \text{Red}|x) = 0.45 < 0.5 \Rightarrow$ **Predict Green**