

1. Given the following information, determine the relative frequency

<u>Outcome</u>	<u>Frequency</u>	<u>Relative Frequency</u>
a	5	
b	3	
c	2	

2. Suppose we flip a coin twice and observe the resulting sequence of heads and tails.

a. (2 pts.) What is the resulting probability distribution?

b. (2 pts.) Sketch the corresponding histogram.

3. (3 pts.) Given the following information, what is the probability distribution for random variable  $X^2$ ?

<u>k</u>	<u>Pr(X=k)</u>	<u>k</u>	<u>Pr(X<sup>2</sup> = k)</u>
-1	0.2		
0	0.3		
1	0.4		
2	0.1		