SOLUTIONS TO

TEST YOUR KNOWLEDGE: Probability Distributions

1. Which of the following statements about discrete probability distributions is false? (a) the binomial distribution is an example of a discrete probability distribution (b) With a discrete probability distribution, when you substitute the random variable into the function, you find out the probability that the particular value will occur. (c) the probability distribution for tossing a die is uniform with the probability of each outcome equal to 1/6. (d) the sum of all the possible outcomes is 1 (e) a probability may sometimes be negative

2. You are considering a business venture and you estimate the probabilities of possible payoffs as follows:

$100,000	.05
$50,000	.10
$30,000	.20
0	.65

Using EMV, how much should you be willing to pay for this business venture? $16,000

3. What is the EMV of a lottery that offers you a .0000001 probability of making $50,000,000?

ANS.: .0000001 X $50,000,000 + 0 = $5.00