Chapter 5 Section 1

Turn this in on a separate piece of paper, otherwise no credit. Show what you entered in your calculator to get the result.

1. According to American Airlines, its flight 215 from Orlando to Los Angeles is on time 90% of the time. Suppose 15 flights are randomly selected and the number of on time flights is recorded.

(a) Find the probability that exactly 14 flights are on time.
(b) Find the probability that at least 14 flights are on time.
(c) Find the probability that fewer than 14 flights are on time.
(d) Find the probability that between 12 and 14 flights inclusive, are on time.

2. According to the Higher Education Research Institute, 55% of college freshmen in 4-year colleges and universities during 2003 were female. Suppose 12 freshmen are randomly selected and the number of females is recorded.

(a) Find the probability that exactly 7 of them are female.
(b) Find the probability that 5 or more are female.
(c) Find the probability that 8 or fewer are female.
(d) Find the probability that between 7 and 10, inclusive, are female.

3. A loaded coin is flipped four times. The random variable X counts the number of times the coin lands on heads, which has a probability of 0.4. Fill out the probability table for the random variable X.

<table>
<thead>
<tr>
<th>X</th>
<th>P(X = x)</th>
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Answers: