Question 1

If X is a binomial random with n = 8 and p = 0.6, what is the probability that X is less than

or equal to 2?

Select one:

a. 0.041

b. 0.375

c. 0.009

d. 0.050

Question 2

If X is a binomial random with n = 10 and p = 0.4, what is the probability that X is greater than 2?

Select one:

a. 0.167

b. 0.800

c. 0.215

d. 0.833

Question 3

If X is a binomial random variable with n = 10 and p = 0.4, the mean of X is \_\_\_\_\_\_\_\_\_.

Select one:

a. 2.4

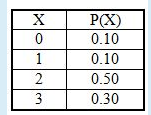
b. 6

c. 4

d. 10

Question 4

A market research team compiled the following discrete probability distribution. In this distribution x represents the number of cars owned by a family residing in North Adelaide.



The mean (average) value of x is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:

a. 2.5

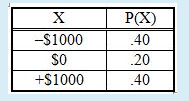
b. 1.5

c. 1.0

d. 2.0

Question 5

You are offered an investment opportunity. Its outcomes and probabilities are presented in the following table.



Which of the following statements is true?

Select one:

a. This distribution is skewed to the left.

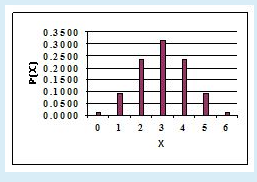
b. This distribution is symmetric.

c. This is a binomial distribution.

d. This distribution is skewed to the right.

Question 6

The following graph is a binomial distribution with n = 6.



This graph reveals that \_\_\_\_\_\_\_\_\_\_\_\_.

Select one:

a. p = 1.0

b. p < 0.5

c. p = 0.5

d. p = 0

Question 7

If X is a binomial random with n = 10 and p = 0.4, what is the probability that X is less than 2?

Select one:

a. 0.046

b. 0.167

c. 0.006

d. 0.040

Question 8

If X is a binomial random variable with n = 8 and p = 0.6, what is the probability that X is equal to 4?

Select one:

a. 0.500

b. 0.124

c. 0.005

d. 0.232

Question 9

If X is the number of successes in an independent series of 10 Bernoulli trials, then X has a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ distribution.

Select one:

a. Normal

b. Binomial

c. Hypergeometric

d. Poisson

Question 10

The amount of time a patient waits in a doctor's surgery is an example of \_\_\_\_\_\_\_\_\_.

Select one:

a. the binomial distribution

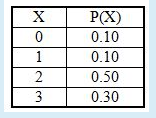
b. a discrete random variable

c. the normal distribution

d. a continuous random variable

Question 11

A market research team compiled the following discrete probability distribution. In this distribution x represents the number of cars owned by a family residing in North Adelaide.



Which of the following statements is true?

Select one:

a. this is a normal distribution

b. this is a binomial distribution

c. this distribution is skewed to the right

d. this distribution is skewed to the left

Question 12

A student randomly guesses the answers to a five question true/false test. If there is a 50% chance of guessing correctly on each question, what is the probability that the student misses exactly 1 question?

Select one:

a. 0.031

b. 0.073

c. 0.200

d. 0.156

Question 13

If X is a binomial random variable with n = 8 and p = 0.6, the mean value of X is \_\_\_\_\_.

Select one:

a. 3.2

b. 6

c. 8

d. 4.8

Question 14

The volume of liquid in an unopened 5-litre can of paint is an example of \_\_\_\_\_\_\_\_\_.

Select one:

a. the binomial distribution

b. the normal distribution

c. a discrete random variable

d. a continuous random variable

Question 15

Twenty-five items are sampled. Each of these has the same probability of being defective. The probability that exactly 2 of the 25 are defective could best be found by \_\_\_\_\_\_\_.

Select one:

a. using the Poisson distribution

b. using the normal distribution

c. using the binomial distribution

d. using the exponential distribution

Question 16

Using the binomial tables, if n = 25 and p = .3 find P(X = 7).

Select one:

a. 0.111

b. 0.024

c. 0.171

d. 0.080

Question 17

If X has a binomial distribution with p = .5, then the distribution of X is \_\_\_\_\_\_\_\_.

Select one:

a. a normal distribution

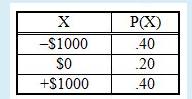
b. skewed to the right

c. skewed to the left

d. symmetric

Question 18

You are offered an investment opportunity. Its outcomes and probabilities are presented in the following table.



The mean of this distribution is \_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:

a. -$400

b. $200

c. $400

d. $0

Question 19

Penny Bauer, Chief Financial Officer of Harrison Haulage, suspects irregularities in the payroll system, and orders an inspection of a random sample of vouchers issued since 1 January 2017. A sample of ten vouchers is randomly selected, without replacement, from the population of 2000 vouchers. Each voucher in the sample is examined for errors; and X is the number of sample vouchers with errors. If 20% of the population of vouchers contain errors, the mean value of X is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Select one:

a. 400

b. 200

c. 5

d. 2

Question 20

A variable that can take on values at any point over a given interval is called \_\_\_\_\_\_\_.

Select one:

a. a point variable

b. a continuous random variable

a discrete random variable

d. a value variable