

Student: _____
Date: _____
Time: _____

Instructor: James Howard
Course: MATH 106 -- Fall 2012 OL4
Book: University of Maryland University
College: MAT106: Finite Mathematics

Assignment: Quiz 6

1. *Medicine.* The reaction times (in minutes) of a drug given to a random sample of 12 patients are:

3.1 3.1 3.3 5.6
6.4 4.6 6.3 3.5
6.3 3.4 6.6 6.6

a. Find the mean of the reaction times. mins
(Type an integer or a decimal. Round to two decimal places.)

b. Find the standard deviation of the reaction times. mins
(Type an integer or a decimal. Round to two decimal places.)

2. *Mouse weights.* Find the mean and median for the data in the following table.

Interval	41.5 – 43.5	43.5 – 45.5	45.5 – 47.5	47.5 – 49.5	49.5 – 51.5	51.5 – 53.5	53.5 – 55.5	55.5 – 57.5	57.5 – 59.5
Frequency	4	7	14	16	20	16	15	7	3

mean = (Round to two decimal places if needed.)

median = (Round to two decimal places if needed.)

3. The probability that brown-eyed parents, both with the recessive gene for blue, will have a child with brown eyes is 0.85. If such parents have 4 children, what is the probability that they will have
(A) All blue-eyed children?
(B) Exactly 3 children with brown eyes?
(C) At least 3 children with brown eyes?

(A) The probability of having all blue-eyed children is about .
(Round to four decimal places as needed.)

(B) The probability of having exactly 3 children with brown eyes is about .
(Round to four decimal places as needed.)

(C) The probability of having at least 3 children with brown eyes is about .
(Round to four decimal places as needed.)

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4. *Education.* In Country Q in 1960, 82.3% of school-age children were enrolled in public schools, 12.5% in Catholic schools, and 5.2% in other private schools. In 1998, 83.1% were enrolled in public schools, 4.6% in Catholic schools, 6.1% in other private schools, and 6.2% were home-schooled. Use two pie graphs to present this data.

What central angle should be used for the portion of the chart representing public school enrollment in 1960?

° (Type your answer in degrees.)

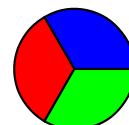
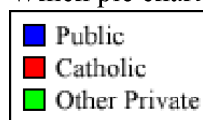
What central angle should be used for the portion of the chart representing Catholic school enrollment in 1960?

° (Type your answer in degrees.)

What central angle should be used for the portion of the chart representing other private school enrollment in 1960?

° (Type your answer in degrees.)

Which pie chart is representative of the above data for 1960?



What central angle should be used for the portion of the chart representing public school enrollment in 1998?

° (Type your answer in degrees.)

What central angle should be used for the portion of the chart representing Catholic school enrollment in 1998?

° (Type your answer in degrees.)

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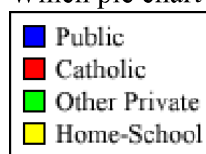
4. (cont.) What central angle should be used for the portion of the chart representing other private school enrollment in 1998?

° (Type your answer in degrees.)

What central angle should be used for the portion of the chart representing home-school enrollment in 1998?

° (Type your answer in degrees.)

Which pie chart is representative of the above data for 1998?



5. *Reading scores.* The grade-level reading scores from a reading test given to a random sample of 12 students in an urban high school graduating class are:

7	7	14	13
11	14	10	11
9	13	15	15

a. Find the mean of the reading scores.
(Type an integer or a decimal. Round to two decimal places.)

b. Find the standard deviation of the reading scores.
(Type an integer or a decimal. Round to two decimal places.)