Homework: Section 6.1

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- You can attempt each problem twice, then the answer will be shown on your third attempt.
- You can attempt each problem as many times needed as long as it is before the due date.
- When reattempting a problem, you will receive a similar problem, not the exact previous problem.
- You can keep on working on versions of a question until you get a perfect score on the exercises.
- The staff at the Math Success Center may help you on this assignment.

Question 1

0/1 pt 2 98

The Acme Company manufactures widgets. The distribution of widget weights is bell-shaped with a mean of 48 ounces and a standard deviation of 8 ounces. Using the Empirical Rule, answer the following questions. *Suggestion*: Sketch the distribution.

a) 99.7% of the widget weights lie between _____ and _____

b) What percentage of the widget weights lie between 40 and 72 ounces? _____ %

c) What percentage of the widget weights lie below 64? _____ %

Question Help: Video

Question 2

0/1 pt 2 98

The physical plant at the main campus of a large state university recieves daily requests to replace florecent lightbulbs. The distribution of the number of daily requests is bell-shaped and has a mean of 40 and a standard deviation of 10. Using the 68-95-99.7 (Empirical) Rule, what is the approximate percentage of lightbulb replacement requests numbering between 20 and 40?

The approximate percentage of lightbulb replacement requests numbering between 20 and 40 is _____ %. (*Do not enter the percent symbol.*)

Question Help: Video

Question 3

0/1 pt 2 98

The lengths of pregnancies in a small rural village are normally distributed with a mean of 267 days and a standard deviation of 15 days.

In what range would we expect to find the middle 95% of most lengths of pregnancies? *Round the answer to one decimal place.*

Between _____ and _____ days

Question 4 0/1 pt 2 98

In a mid-size company, the distribution of the number of phone calls answered each day by each of the 12 receptionists is bell-shaped and has a mean of 60 and a standard deviation of 8. Using the empirical rule, what is the approximate percentage of daily phone calls numbering between 52 and 68?

Do not enter the percent symbol.

ans = _____ %

Question 5 0/1 pt 2 98

The Acme Company manufactures widgets. The distribution of widget weights is bell-shaped with a mean of 37 ounces and a standard deviation of 11 ounces. Using the Empirical Rule, answer the following questions. *Suggestion*: Sketch the distribution.

a) 95% of the widget weights lie between _____ and _____

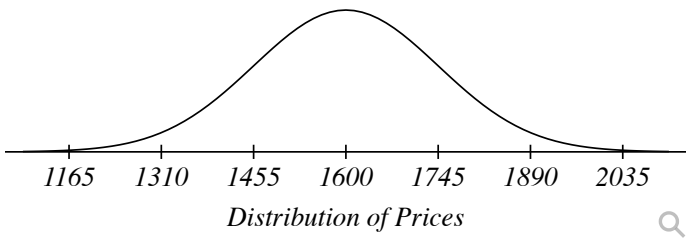
b) What percentage of the widget weights lie between 26 and 59 ounces? _____ %

c) What percentage of the widget weights lie above 4? _____ %

Question Help: Video

Question 6 0/1 pt 2 98

The graph illustrates a normal distribution for the prices paid for a particular model of HD television. The mean price paid is $1600 and the standard deviation is $145.



Distribution of Prices

What is the approximate percentage of buyers who paid less than $1310?

_____ %

What is the approximate percentage of buyers who paid between $1600 and $1890?

_____ %

What is the approximate percentage of buyers who paid more than $2035?

_____ %

What is the approximate percentage of buyers who paid between $1455 and $1600?

_____ %

What is the approximate percentage of buyers who paid between $1455 and $1745?

_____ %

What is the approximate percentage of buyers who paid between $1600 and $2035?

_____ %

Question Help: Video 1 Video 2

Question 7 0/1 pt 2 98

A company has a policy of retiring company cars; this policy looks at number of miles driven, purpose of trips, style of car and other features. The distribution of the number of months in service for the fleet of cars is bell-shaped and has a mean of 55 months and a standard deviation of 6 months. Using the 68-95-99.7 (Empirical) Rule, what is the approximate percentage of cars that remain in service between 61 and 73 months?

The approximate percentage of cars that remain in service between 61 and 73 months is _____ %. *Do not enter the percent symbol.)*

Question Help: Video

Question 8 0/1 pt 2 98

In a mid-size company, the distribution of the number of phone calls answered each day by each of the 12 receptionists is bell-shaped and has a mean of 61 and a standard deviation of 7. Using the empirical rule (as presented in the book), what is the approximate percentage of daily phone calls numbering between 54 and 68?

Do not enter the percent symbol.

ans = _____ %