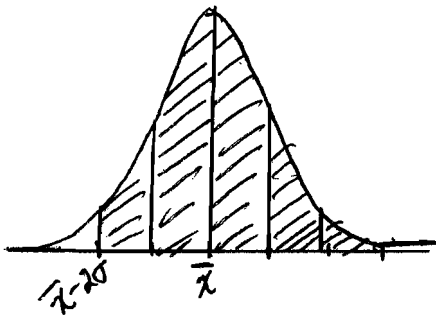
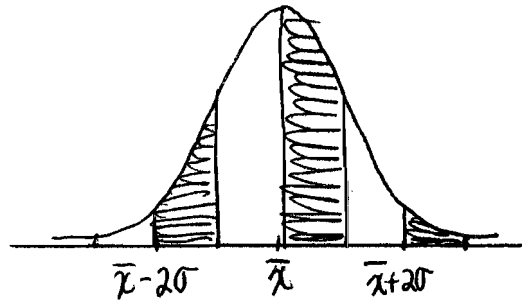


Give the percent area under a normal curve represented by each shaded region.

1.



2.

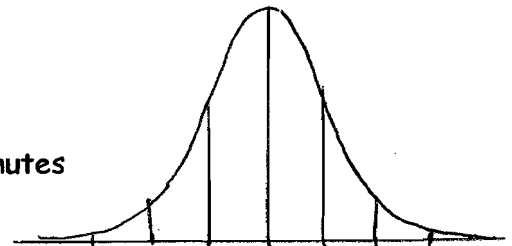


3. The waiting time in line at a bank during the busiest hours is described by a normal distribution with a mean of 8 minutes and a standard deviation of 2 minutes. Find the probability (rounded to the nearest thousandth) that:

a) a randomly selected customer waits less than 6 minutes

b) a randomly selected customer waits between 4 and 12 minutes

c) the next two customers in line wait longer than 10 minutes



4. In a normal distribution that approximates a binomial distribution, the number of trials $n = 2000$ and probability of success $p = .35$. Find the mean and the standard deviation, rounded to the nearest thousandth if necessary.

5. Suppose that in a nationwide poll, 72% of households owned at least one car. You are conducting a random survey of 129 households. What is the probability that at least 98 of them own at least one car?

Review

6. A student's grade in her history class depends on the grade earned on a 20-question True-False quiz. Sadly, the student did not have time to study and she must guess the answer to each question. What is the probability that she will guess at least 18 answers correctly in order to earn an "A" in the class? Round answer to ~~ten~~-Thousandths.
7. A high school sophomore's classes are Algebra 2 Honors, Language Arts 2, Spanish 2, European History AP, Chemistry, and Athletics. What is the probability that he is taking Language Arts 2 during first period?
8. You have 9 coins in your pocket: 3 quarters, 4 dimes, 2 nickels. Two coins are randomly selected at the same time. Find the probability that the total amount of money from the two coins is at least 20 cents.
9. If there are 8 equally ^{qualified} students on an academic competition team:
- how many ways can the team's advisor select practice groups of 2 or 4 students?
 - how many ways can 6 of them be chosen to attend the next competition?
 - how many ways can the 6 members attending the competition line up to accept the trophy?