

Practice with z-tables

Name:

Solve the following problems using a mean of 18 and a standard deviation of 5:

- 1) Between what two scores do the middle 40% of the data fall?

- 2) Where is the third quartile located?

- 3) Below what score did 20% of the results fall?

Solve the following problems using a mean of 25 and a standard deviation of 6:

- 4) What percentage of the scores fall between 10 and 40?

- 5) An average light bulb manufactured by the Acme Corporation lasts 300 days with a standard deviation of 50 days. Assuming that bulb life is normally distributed, what is the probability that an Acme light bulb will last at most 365 days?

- 6) Suppose scores on an IQ test are normally distributed. If the test has a mean of 100 and a standard deviation of 10, what is the probability that a person who takes the test will score between 90 and 110?

- 7) Assume X is normally distributed with a mean of 10 and a standard deviation of 2. Determine the value for x so that the z -score is equal to 0.95.