1. Ages of applicants for a particular scholarship are normally distributed with a mean age of 21.3 years and a standard deviation of 1.85 years. If an applicant is randomly selected, find the probability that the applicant is under 18 years old. Express answer as a decimal - four decimal places.
2. Song lengths scheduled for airplay on a radio station are normally distributed with a mean length of 3.5 minutes and a standard deviation of 0.28 minute.

What percentage of songs is within 3 to 4 minutes long? Express answer in two decimal places.

1. The average score on a particular exam is determined to be 84.35 with a standard deviation of 7.4. Assume the scores are normally distributed. Applicants with exam scores in the lower 10% are directed to special training.

What is the minimum score required not to be directed to retraining? Express answer as a decimal - two decimal places.

1. A catering company claims that the total calories of their entrees are normally distributed with an average of 100 calories and a standard deviation of 300 calories. Fifty randomly selected meals were tested and the average calories were recorded.

What is the probability that the mean calories recorded is greater than 14100 calories?

1. A school finds the average time required to complete a task is 37 minutes with a standard deviation of 11.6 minutes. A sample of 25 students was selected at random.

Assuming that the distribution of the times I normal, what is the probability that the average for this sample is between 30 and 40 minutes? Express answer as a decimal – two decimal places.