Standard Deviation and Normal Distribution
Home Work

46. A class at USA College is very hard. On a test, the average score was 63.25% with a standard deviation of 10.75. If there were 300 students in the class, how many would you expect would get between a 74 and an 85 on the test? Round to the nearest student.

47. Create a normal distribution graph to represent the Mean Annual Salaries of Farming, Fishing and Forestry Occupations. Base data is shown below.

Occupation Title	Employment	Mean Hourly	Mean Annual
Farming, Fishing, and Forestry Occupations	408,040	$11.70	$24,330
First-Line Supervisors of Farming, Fishing, and Forestry Workers	19,540	$21.65	$45,040
Agricultural Inspectors	13,560	$20.36	$42,340
Animal Breeders	1,380	$17.13	$35,620
Graders and Sorters, Agricultural Products	38,950	$10.18	$21,180
Agricultural Equipment Operators	24,110	$12.49	$25,970
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	228,600	$9.64	$20,040
Farmworkers, Farm, Ranch, and Aquacultural Animals	31,880	$11.56	$24,040
Agricultural Workers, All Other	7,490	$13.35	$27,780
Fishers and Related Fishing Workers	700	$13.41	$27,880
Forest and Conservation Workers	7,040	$13.34	$27,740
Fallers	6,260	$18.59	$38,660
Logging Equipment Operators	22,880	$16.06	$33,400
Log Graders and Scalers	2,480	$16.50	$34,330
Logging Workers, All Other	3,130	$16.59	$34,510

** http://www.statisticbrain.com/farming-and-forestry-occupation-salary-statistics/

48. The average number of photos uploaded on Facebook per day is 250. The data reported has a standard deviation of 100. Find the number of photographs someone with a z-score of 3.5 uploaded in one day.

49. A manufacturing plant makes nickel plates. They put approximately 2 oz. of nickel in each plate. The amount of nickel fluctuates slightly, but the manager guarantees that at least 95% of the plates have between 1.95 and 2.05 oz. of nickel in them. Find the greatest standard deviation that will be allowed to maintain this standard.

50. A 10th grader scores 72% on a standardized test. The mean of the test was 83% and the standard deviation is 3.2. What was the 10th graders reported percentile?