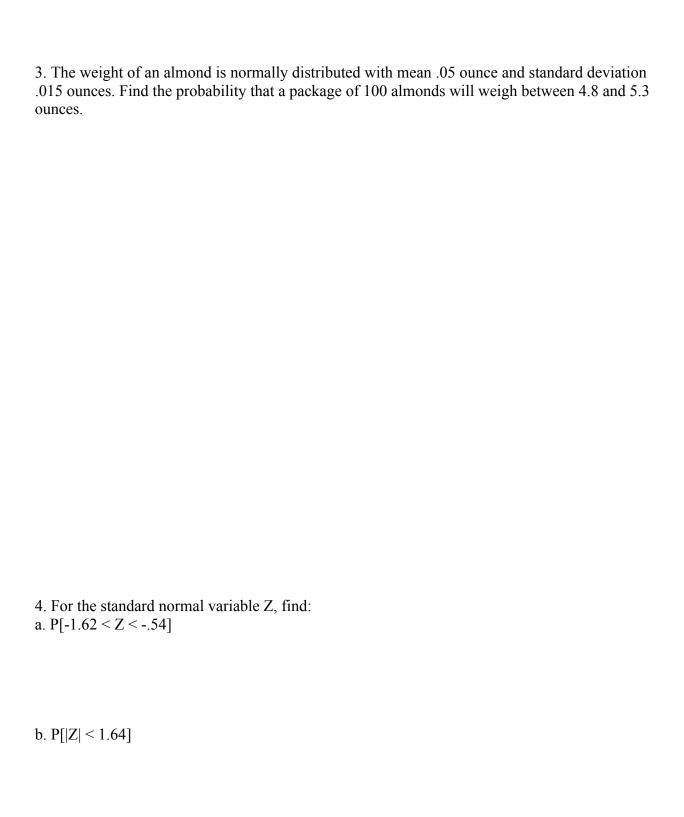
Math 1600, Section 12, Fall 2016 – Statistics Lab 9 – November 3, 2016

| Names: | Group: |
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| 1. The amount of sulfur in daily emissions from a power plant has a normal distribution with a mean of 94 pounds and a standard deviation of 22 pounds. A random sample of five days is taken: | |
| a. What can you say about the probability distribution of the sample mean \overline{X} ? | |
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| b. Find the probability that the total amount of sulfur emissions will exceed 500 pounds. | |
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| 2. A random sample of size 100 is taken from a population having a mean of 23 and a standard deviation of 4. The shape of the population distribution is unknown. a. What can you say about the probability distribution of the sample mean \overline{X} ? | |
| | |
| | |
| b. Find the probability that \overline{X} will exceed 23.6. | |



c. P[|Z| > 1.96]