Chapter 12 Scanned Homework #2

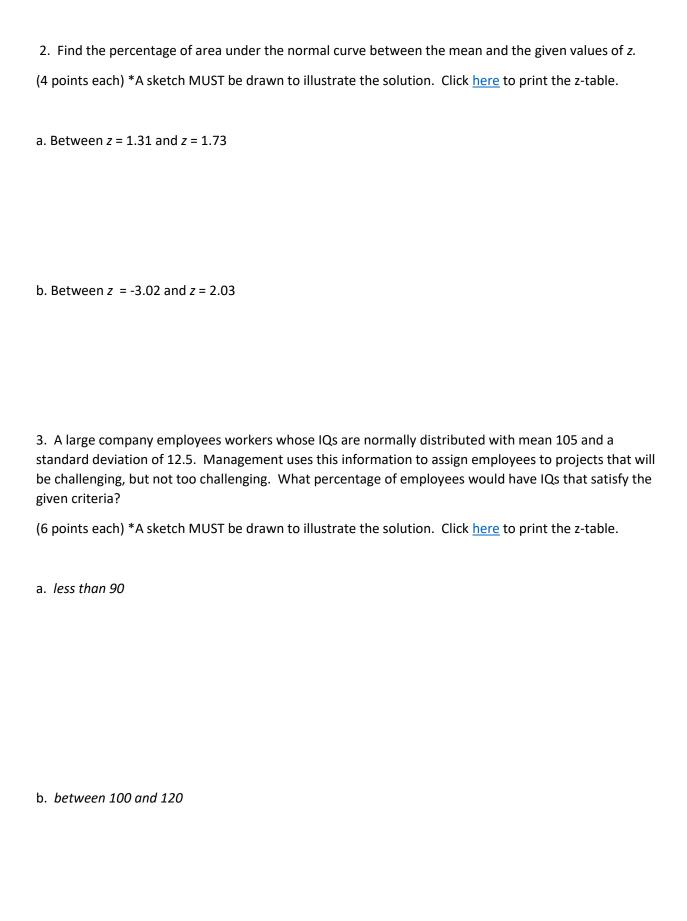
Contemporary Math

All work and any formulas used must be shown for problems involving a process.

The following are the numbers of dinner customers served by a restaurant on 40 consecutive days. The numbers have been ranked least to greatest.

46	51	52	55	56	56	58	59	59	59
60	61	62	62	63	63	64	64	64	65
66	66	66	67	67	67	68	68	69	69
70	70	71	71	72	75	79	79	83	88

- 1. (4 points each for each calculation)
- a. Median:
- b. Quartile 1:
- c. Quartile 3:
- d. 15th percentile:
- e. 85th percentile:
- f. Which value is in the 88th percentile?



4. Use the empirical rule to solve. Draw a figure for each part. (4 points each)
The mean body weight for women between 18 and 25 years old is 134 lbs and the standard deviation is 26 lbs.
a. What percent of women in this age group will weigh between 108 and 160 lbs?
b. What percent of women in this age range will weigh between 82 and 186 lbs?
c. What percent of women in this age range will weigh between 56 and 212 lbs?
d. What percent of women in this age range will weigh less than 108 lbs?
e. In a college dormitory of 450 females ages 18-25 years old, how many would you expect to weigh
between 82 and 186 lbs?