

NAME: Key

SCORE: _____/15

QUIZ 1, 1/23/12 (Ch.1, Sections 2.1 – 2.3)

MATH 10 (J. Cox)

Please show your work to receive full credit.

1. (1 point) In the statement “By 2040 at least 3.5 billion people will run short of water,” what type of statistics has been used? (Circle the correct answer.)

DESCRIPTIVE

INFERENTIAL

2. (1 point) Classify the variable as *qualitative* or *quantitative*. (Circle the correct answer.)

The seating capacity of the NFL football stadiums.

QUALITATIVE

QUANTITATIVE

3. (3 points) At an outpatient testing center, the number of cardiograms performed each day for 20 days was recorded. The data has been organized into a stem and leaf plot. Use the plot to answer the questions that follow.

0	2
1	3 4
2	0 3 5
3	1 2 2 2 2 3 6
4	3 4 4 5
5	1 2 7

(a) What is the **maximum** number of cardiograms performed in one day? 57

(b) On how many days were 44 cardiograms performed? 2

(c) On how many days were at least 30 cardiograms performed? 14

4. The amount of protein (in grams) for forty fast-food sandwiches is reported here (the results are given in ascending order).

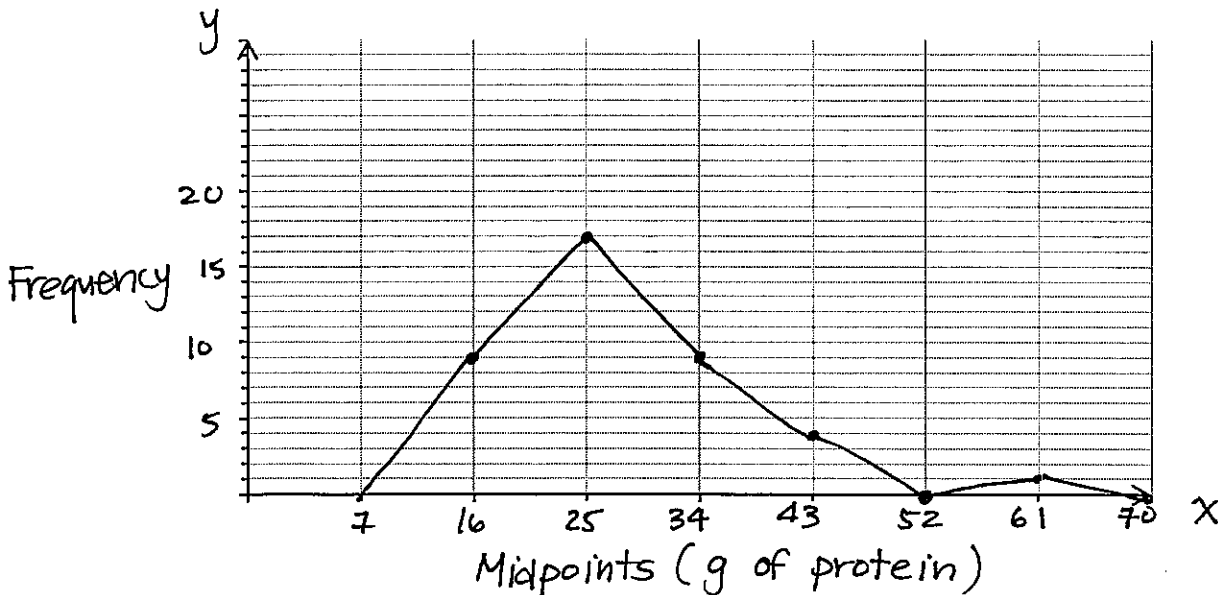
12 12 14 15 15 18 19 20 20/ 21 $R = 57 - 12 = 45$
 22 22 23 23 24 24 25 26 26 26
 27 27 27 27 29 29/ 30 31 33 34 $\frac{45}{6} = 7.5 \uparrow \textcircled{9}$
 35 35 35 35 38/ 40 42 43 44 57

(a) (4 points) Create a grouped frequency distribution for the data using 6 classes.

CLASS LIMITS (GRAMS)	CLASS BOUNDARIES	FREQUENCY	MIDPOINTS
12 - 20	11.5 - 20.5	9	16
21 - 29	20.5 - 29.5	17	25
30 - 38	29.5 - 38.5	9	34
39 - 47	38.5 - 47.5	4	43
48 - 56	47.5 - 56.5	0	52
57 - 65	56.5 - 65.5	1	61

(b) (1 point) What is the class width for the distribution? 9

(c) (4 points) Using the distribution you created in part (a), construct an frequency polygon on the axes below. Remember to label the axes appropriately.



(d) (1 point) What percentage of sandwiches contained fewer than 30 grams of protein?

65% $\frac{26}{40} = .65$