

Quiz 2: Ch 2

Dr. Jorge Basilio

NAME (PRINT): Solutions

SCORE: _____

SIGNATURE: _____

Directions

- YOU ARE ALLOWED TO USE A CALCULATOR ON THIS EXAM. (Ti83/Ti83+/Ti84/Ti84+/Ti84+CE-T, or scientific calculator)
- Handwriting should be neat and legible. If I cannot read your writing, zero points will be given.
- Make sure to ALWAYS SHOW YOUR WORK; you will not receive any partial credits unless work is clearly shown. *If in doubt, ask for clarification.*
- Leave answers in exact form (as simplified as possible), unless told otherwise.
- Put a box around your final answer where applicable.

Quiz (25 points)

Problem 1: 10 pts

Sixty adults with gum disease were asked the number of times per week they flossed before their diagnosis. The (incomplete) results are shown:

$n = 60$
 $60 - 42 =$

# flossing per week	Frequency	Relative Frequency	Cumulative Rel. Freq.
0	27	$27/60 = 0.45$	0.45
1	18	0.3	0.75
3	6	0.1	$0.75 + 0.1 = 0.85$
6	3	$3/60 = 0.05$	0.9
7	6	$6/60 = 0.1$	1

(a) (5 pts) Fill in the blanks in the table above.

(b) (1 pt) What percent of adults floss less than 3 times per week? Round your answer to the nearest percent.

$\%$ $0, 1, 2$ only

less than 3 : $0.75 \rightarrow \boxed{75\%}$ alternatively: $0.75 \times 100\% = 75\%$

(c) (1 pt) What is the relative frequency of adults that floss at most 6 times per week?

$0, 1, 2, 3, 4, 5, 6$

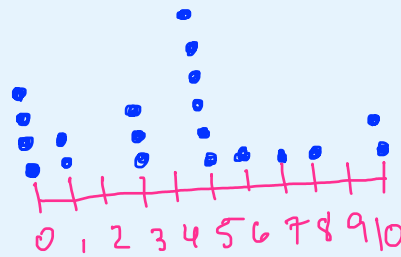
cumulative 6 or less : $\boxed{0.9}$
(same as at most 6)

Problem 2: 5 pts

The following data represent the results of a survey asking "How long does it take you to eat breakfast?"

0 3 3 0 0 1 1 5 5 5 5 5 10 7 6 8 10 0 3 5

Create a **dot plot** display for the data.



Problem 3: 10 pts

Age (yr) of Best Actress When Oscar Was Won	Frequency (f)
20-29	29
30-39	34
40-49	14
50-59	3
60-69	5
70-79	1
80-89	1

Identify the following given the above frequency distribution:

(a) (1 pt) **How many** individuals are included in the summary?

$$\sum f = 29 + 34 + 14 + 3 + 5 + 1 + 1 = \boxed{87 \text{ Oscar winners}}$$

(b) (1 pt) **class width**

$$LCL - LCL = 30 - 20 = \boxed{10}$$

(c) (4 pts) **class midpoints**

$$CM1 = \frac{20+29}{2} = 24.5, \quad CM2 = \frac{30+39}{2} = 34.5, \quad CM3 = 44.5, \quad CM4 = 54.5, \quad CM5 = 64.5, \\ CM6 = 74.5, \quad CM7 = 84.5$$

(d) (4 pts) **class boundaries**

$$19.5, 29.5, 39.5, 49.5, 59.5, 69.5, 79.5, \underline{89.5}$$

remember always 2 more CBs