

Math 153 - Quiz 2

September 3, 2015

Name Key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (6 points) Researchers studying Mariana fruit bats caught and weighed 25 adult males bats. Following are their weights (in grams).

~~466~~ ~~469~~ 501 516 520 ~~453~~ ~~445~~ ~~417~~ ~~422~~
~~463~~ 526 ~~419~~ 525 497 489 ~~441~~ 547 ~~438~~
 489 481 495 545 538 518 479

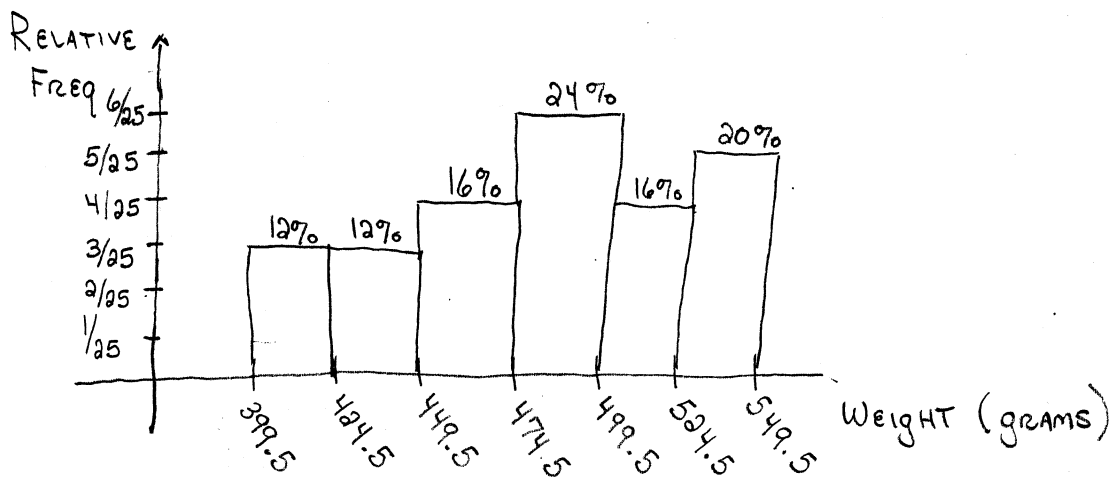
Min: 417

Max: 547

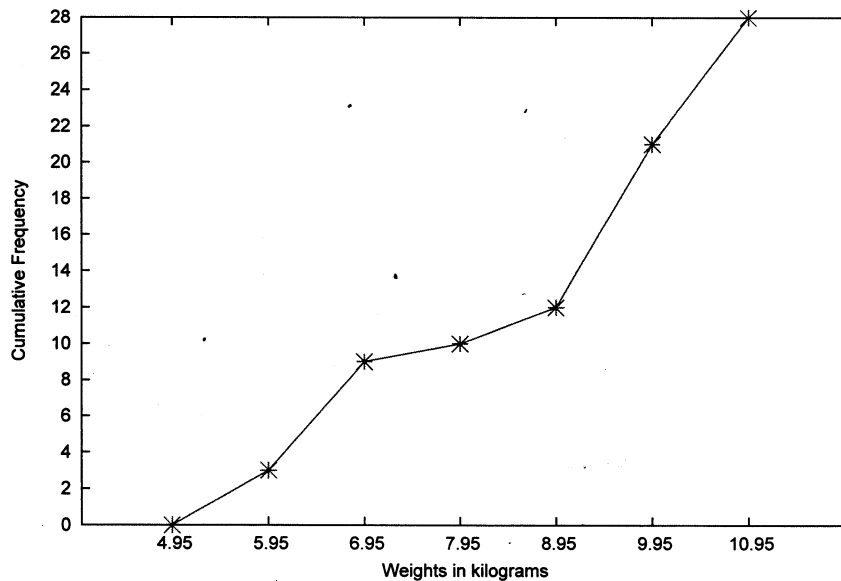
- (a) Construct a frequency distribution for the weights above. Use at least 5 classes.

Weight	Frequency
400-424	3
425-449	3
450-474	4
475-499	6
500-524	4
525-549	5

- (b) Using class boundaries for tick marks along your horizontal axis, construct the relative frequency histogram corresponding to your frequency distribution.



2. (3 points) The following ogive shows the distribution of weights (in kilograms) of five-week-old piglets in a sample taken by a local farmer.



- (a) How many piglets are in the sample described by the ogive?

28

- (b) In which range of weights (4.95–5.95, 5.95–6.95, etc.) were there the most piglets?

8.95–9.95 (Steepest)

- (c) If a **relative frequency histogram** was constructed with the same data, what would be the height of the bar associated with the interval 5.95–6.95?

$$9-3=6 \rightarrow \frac{6}{28} \approx 21.4\%$$

3. (1 point) The frequency distribution shown below gives the daily high temperatures (in °F) last year in Cleveland, OH.

High Temp (°F)	Frequency
20.0–30.8	19
30.9–41.7	43
41.8–52.6	68
52.7–63.5	69
63.6–74.4	74
74.5–85.3	68
85.4–96.2	24

What are the class boundaries associated with the first class listed above?

19.95 - 30.85