

Chapter (8) Study Guide

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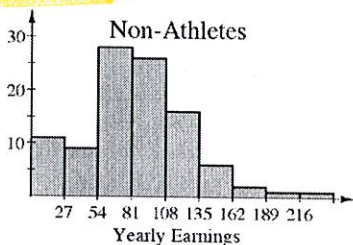
Ch. 8 Study Guide- Statistics Notebook Pages 49-60

1. Over the summer, Donald read books that were 192, 202, 175, 219, and 197 pages long. Find the mean number of pages that Donald read. What does the mean represent?

① 197
197
D

197
number

2. A 2005 study at the State University of New York looked at college athletes' earnings six years after graduation to determine if college athletes tended to earn more in their full-time jobs than non-athletes. Yearly earnings are displayed in thousands.



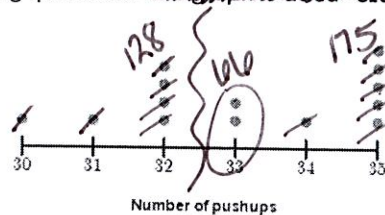
a) Approximately how many non-athletes earn less than 54,000?

athletes

b) Describe the shape and distribution of the data.

2

3. Use the dot plot below to answer the following questions.



a) What is the minimum? What is the maximum? What is the range?

b) Is the following statement true or false. Half of the students completed 33 or more pushups. Explain.

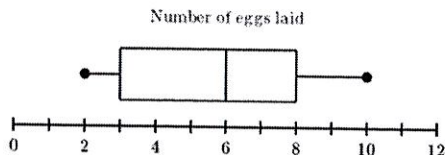
c) What is the median? What is the mean?

d) Where are there peaks in the data?

um is
:
:
en
3 or
d have
7A.
r.
i pushups
ps.

4. What is a statistical question? Give an example and a non-example.

5a. Based on the box plot below: a) What is the "typical" number of eggs laid?



b) What is the range?

c) What is the interquartile range (difference between the upper and lower quartile)?

6. Create a stem and leaf plot for the following data set: 42, 48, 25, 28, 19, 12, 20

12, 19, 20, 25, 28, 42, 48

en
leth
leth

⑤ a) The typical number of eggs laid is 6. (median)

b) The range (10-2) is 8.

c) The IQR (8-3) is 5.

⑥

stem	leaf
1	29
2	058
3	
4	28

① $192 + 202 + 175 + 219 + 197 = 985 \div 5 = 197$
 197 (the mean) represents the average number of pages.

② a) Approximately $(11+9)$ 20 non-athletes earned less than \$4,000.
 b) This data set is skewed and has a peak around \$8,000.

③ a) The minimum is 30, the maximum is 35 and the range is $(35-30)$ 5.

b) pushups

33+	8 students	False, more than half completed 33 or more. Half would have been 7 students.
30-32	6 students	

c) The median (middle) is 33 pushups.
 The mean (average) is $464 \div 14 \approx 33.1$ pushups

d) There are peaks at 32 and 35 pushups.

④ A statistical question has answers which vary. ex what is the math grade of 10th graders right now?

non-ex what is the highest grade in 10th grade math right now?
 (median)

⑤ a) The typical number of eggs laid is 6.

b) The range $(10-2)$ is 8.

c) The IQR $(8-3)$ is 5.

⑥

stem	leaf
1	29
2	058
3	
4	28