

## Pre-Algebra Homework #16

1) Simplify:  $-3^3 - 48 \div 16(-1 - 2) + \sqrt[3]{216} - 1^7$

- 2) Find the mean, median, mode, range, interquartile range, and mean absolute deviation of this following set of numbers. Round to the nearest tenth when needed.

68, 84, 75, 81, 77, 72, 71, 67, 71

- 3) If a Gabi plays 108 chess games and loses 18, what fraction of the games did she win?

4) Simplify:  $\frac{\sqrt{1296}}{\sqrt{784}}$

- 5) Find the mean, median, mode, range, interquartile range, and mean absolute deviation of this following set of numbers. Round to the nearest tenth when needed.

33, 9, 21, 21, 14, 13, 15

- 6) Create a box plot with the following set of data. Round to the nearest tenth when needed.

57, 41, 40, 67, 66, 45, 63, 42

- 7) Create a histogram with the following set of data.

15, 6, 25, 24, 36, 46, 77, 76, 71, 98, 80, 95, 90

- 8) Create a box plot with the following set of data. Round to the nearest tenth when needed.

37, 84, 70, 64, 24, 93, 25, 39, 82, 49, 82

- 9) Create a histogram with the following set of data.

14, 6, 34, 23, 33, 28, 34, 55, 77, 65, 68, 82, 80, 84, 85

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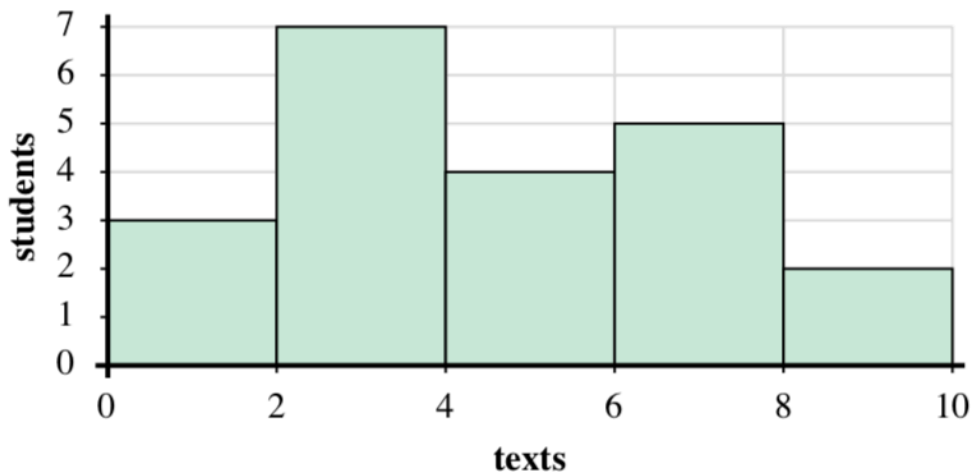
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## Pre-Algebra Homework #16

- 10) Use the scenario to identify populations and samplings.
- A beverage company wanted to see if people in the United States liked their new logo. Which choice **best** represents a population?
    - A selection of logo artists.
    - Every person in the United States.
    - A selection of shoppers from different states.
    - 3,800 children age 5-15.
  - A musician wanted to see what people who bought his last album thought about the songs. Which choice **best** represents a sample?
    - Every person who bought the album.
    - A selection of people who didn't want to buy the album.
    - 250 girls who bought the album.
    - A selection of 3,294 people who bought the album.

- 11) Use the histogram to answer the following questions.

**The histogram below show the number of texts students sent each day.**



- Most students sent between \_\_\_ and \_\_\_ texts.
- How many students sent between 4 and 6 texts?
- How many students are represented in this histogram?
- If a student sent 2 texts which bar would they be added to?

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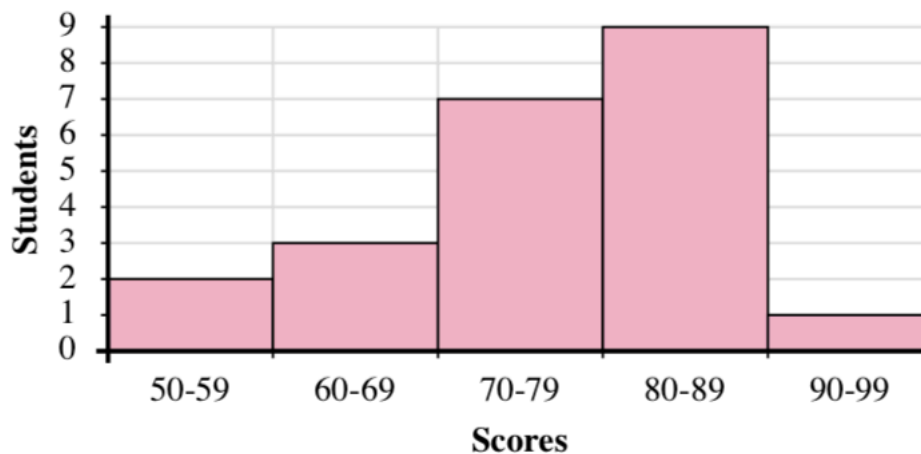
## Pre-Algebra Homework #16

- 12) Create a box plot with the following set of data. Round to the nearest tenth when needed.

19, 13, 12, 19, 9, 5, 13, 18, 8

- 13) Use the histogram to answer the following questions.

**The histogram below show the students scores for a quiz.**



- In which range of scores did the most students fall?
  - How many students scored between 70 and 89?
  - How many students are represented in this histogram?
  - If a student scored a 59 which bar would they be added to?
- 14) The following table shows the heights and weights of 10 people. Draw a scatter plot and describe the correlation between their heights and weights?

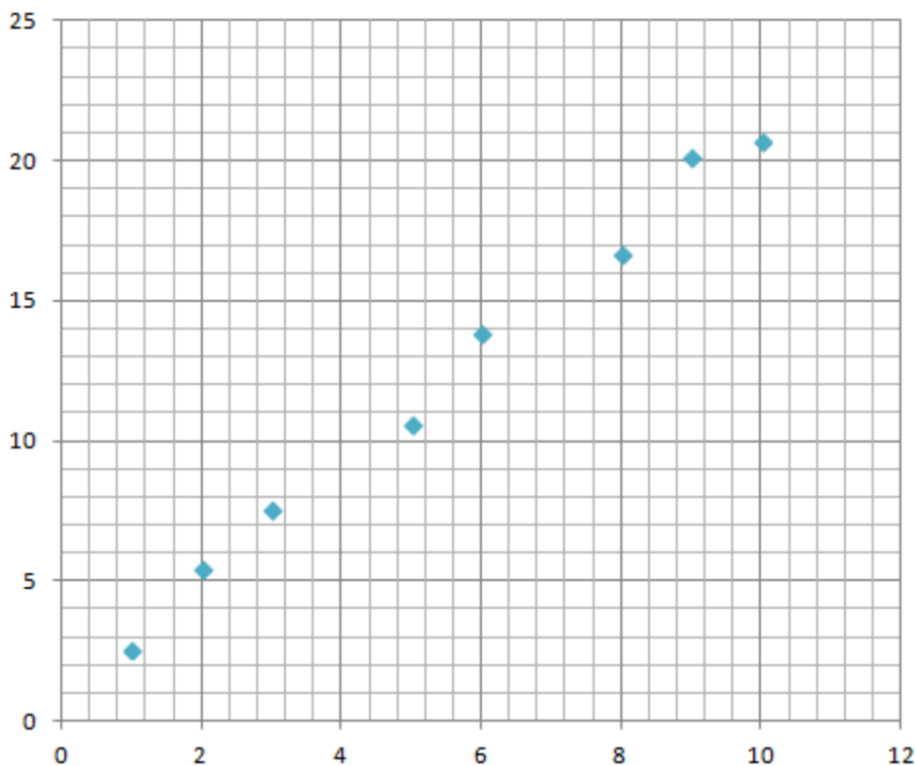
Name	Height (cm)	Weight (kg)
Albert	180	87
Beth	176	55
Cindy	144	52
David	195	94
Emily	159	87
Frank	185	79
Gary	166	59
Helen	173	64
Ida	149	45
Jeremy	168	77

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- 15) Use the scenario to identify populations and samplings.
- A gaming website wanted to find out which console its visitor's owned. Which choice **best** represents a population?
    - Visitors to the 3DS section.
    - All of the website visitors.
    - Visitors to the PS4 section.
    - Visitors who are on the website for more than 5 minutes.
  - Before a nation wide election, a polling place was trying to see who would win. Which choice **best** represents a sample?
    - A selection of voters over age 50.
    - A selection of male voters.
    - A selection of voters of different ages.
    - All voters.
- 16) The following scatter plot shows data with a high positive correlation. Draw a line of best fit and then use the interpolation to predict the of  $y$  when  $x = 4$ .

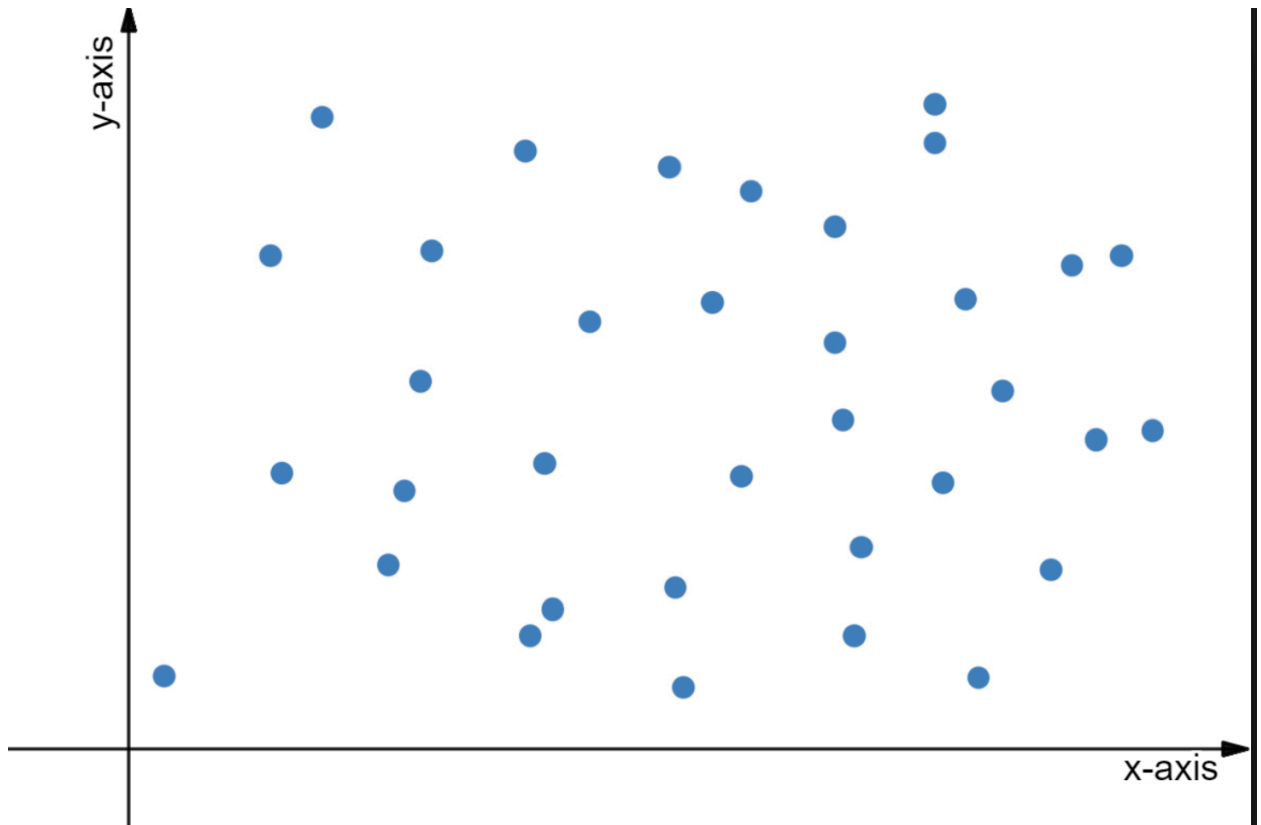


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- 17) Describe the correlation of the following scatter plot.



- 18) Create a histogram with the following set of data.

2, 7, 6, 39, 37, 32, 51, 56, 53, 52, 48, 65, 78, 77, 77, 68, 87, 85, 91, 81, 88

- 19) Create a box plot with the following set of data. Round to the nearest tenth when needed.

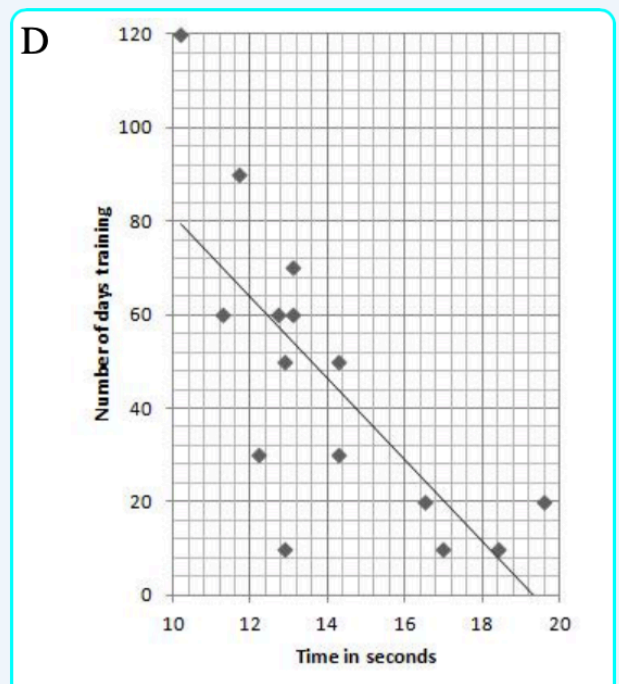
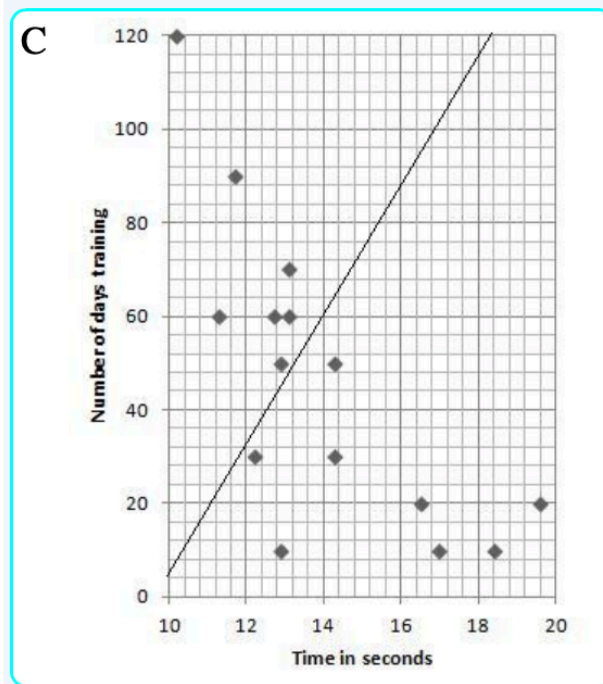
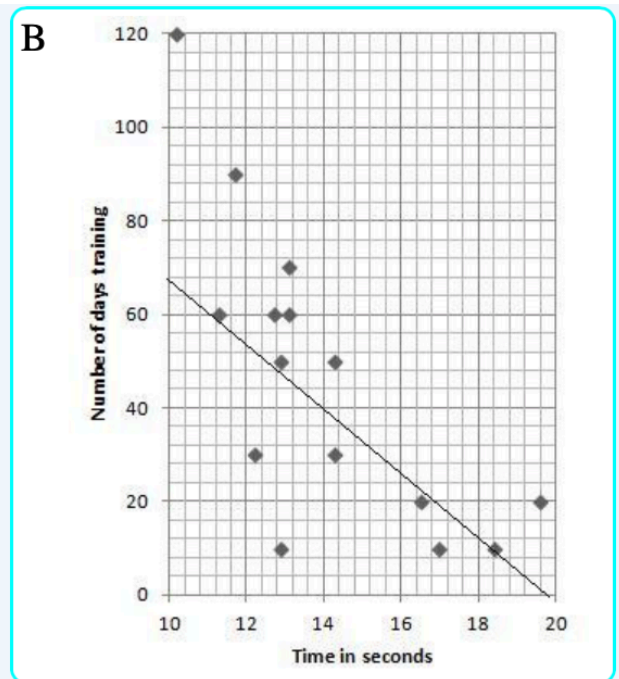
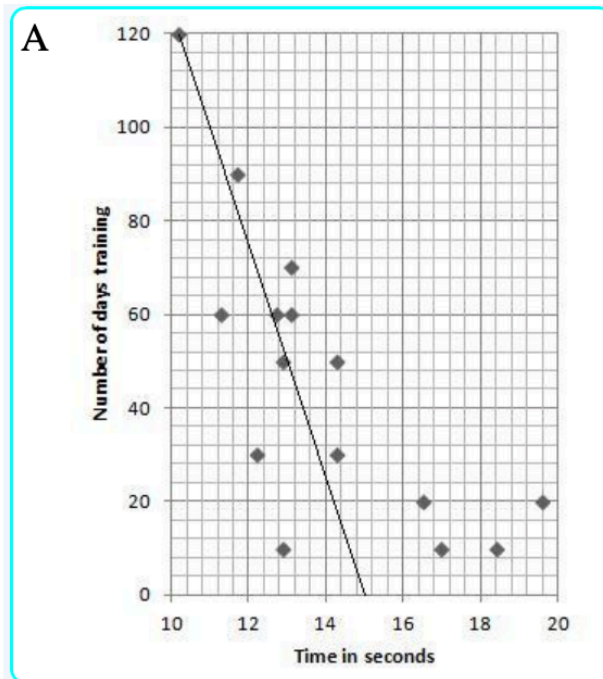
5, 15, 5, 5, 6, 5, 16, 20, 6, 16

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20) Which graph shows the line of best fit for the scatterplots below?



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