

Name: _____ Date: _____ Period: _____

Analyzing Relationships on Graphs

For each of the following data tables, plot the data on the graph and answer the questions that follow.

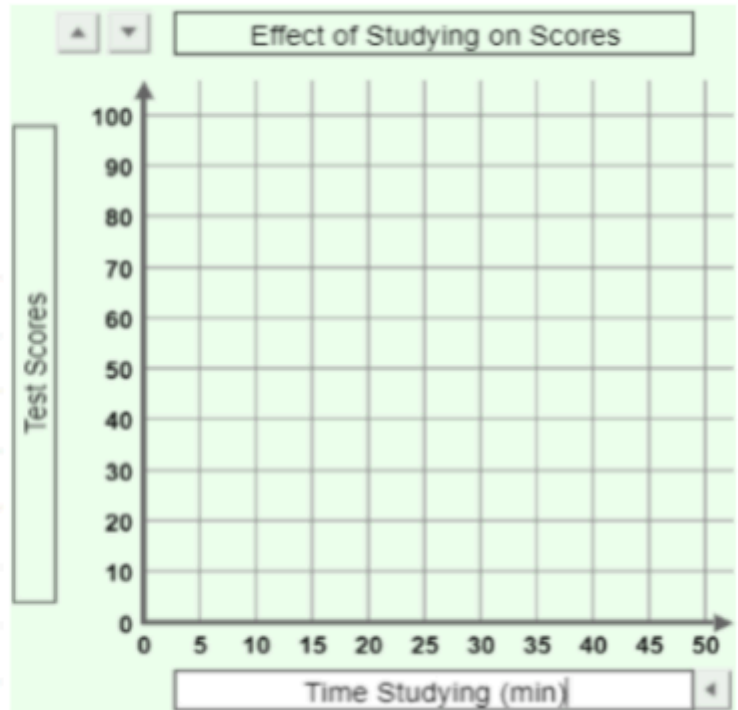
If you are completing this assignment on paper, plot the data onto the graph with a pen or pencil.

If you are completing this assignment digitally, double click the graph and a google drawing box will open. Click and drag the colored dots onto their correct place on the graph. When you are finished with plotting the points for that graph, click the "save and close" button above the image and you should see the points you plotted on the graph.

The data shows how long students studied and their scores. Create a scatter plot to represent the data.

Studying and Score Data

Name	Time (min)	Score
Robert	40	98
Griselda	5	58
María	15	89
Carlos	30	87
Patrick	5	47
Muriel	15	68
Harold	20	78
Alicia	35	99



1. What are the variables represented in this graph? (Hint: look at the x and y-axis)
X: _____ Y: _____
2. What is the relationship that this graph demonstrates?
Fill in the blanks of the following sentence frame to create your response:
As the _____, the _____.
(x-axis/independent variable) (increases/decreases) (y-axis/dependent variable) (increases/decreases)
3. Use the following sentence frame to compare Robert to Patrick (Circle / highlight the correct word):
Robert studied (longer / shorter) than Patrick.
Robert scored (higher / lower) than Patrick.
4. Based on the completed graph, how many points would you expect someone who studied for 25 minutes to score on their test? _____
5. Based on the completed graph, if someone scored 60 on their test, how many minutes would you expect that they studied? _____

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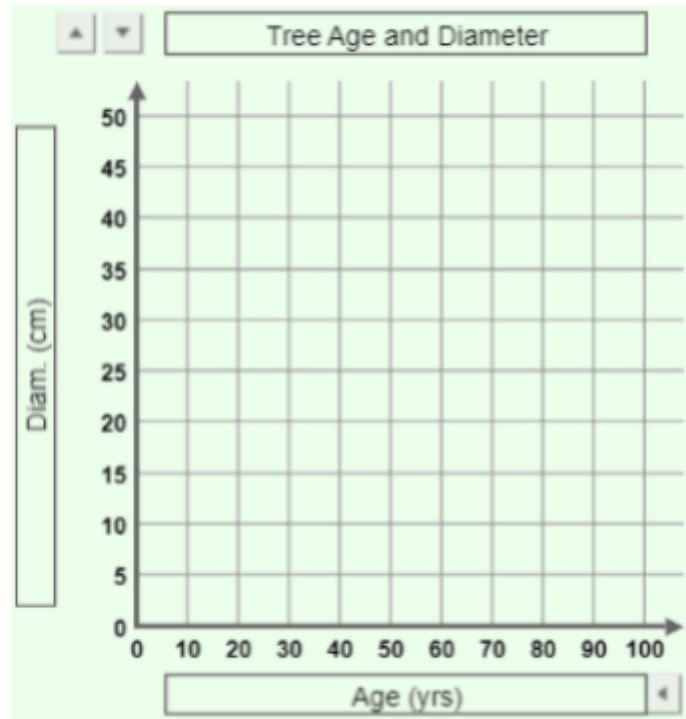
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The data shows the age and diameter of eight maple trees. Create a scatter plot to represent the data.

Tree Age and Diameter Data

Tree	Age (yrs)	Diam. (cm)
A	10	2
B	94	26
C	67	17
D	25	3
E	32	9
F	35	7
G	44	10
H	75	19



- What are the variables represented in this graph? (Hint: look at the x and y-axis)
X: _____ Y: _____
- What is the relationship that this graph demonstrates?
Fill in the blanks of the following sentence frame to create your response:
As the _____, the _____.
(x-axis/independent variable) (increases/decreases) (y-axis/dependent variable) (increases/decreases)
- Use the following sentence frame to compare Tree A to Tree B (Circle / highlight the correct word):
Tree A lived (longer / shorter) than Tree B.
Tree B has a (bigger / smaller) diameter than Tree A.
- Based on the completed graph, how large of a diameter would you expect a 55 year old tree to have? _____
- Based on the completed graph, if a tree had a diameter of 1 cm, how old would you expect that tree to be? _____

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The data shows the cost of items and how many were sold. Create a scatter plot to represent the data.

Price and Sales Data

Item	Price (\$)	Number
Tee shirt	14	32
Socks	6	32
Sweater	49	18
Jacket	62	13
Jeans	34	19
Belt	14	22
Underwear	8	28
Dress	42	19



11. What are the variables represented in this graph?

12. What is the relationship that this graph demonstrates?

Fill in the blanks of the following sentence frame to create your response:

As the _____, the _____.

(x-axis/independent variable) (increases/decreases) (y-axis/dependent variable) (increases/decreases)

13. Use the following sentence frame to compare Socks to Jackets (Circle / highlight the correct word):

Socks have a (higher / lower) price than Jackets.

Socks sold (more / less) than Jackets.

14. Based on the completed graph, how many items could you expect to sell if they were priced at \$25?

15. Based on the completed graph, if only 8 of an item were sold, what would you expect the price of that item to be? _____

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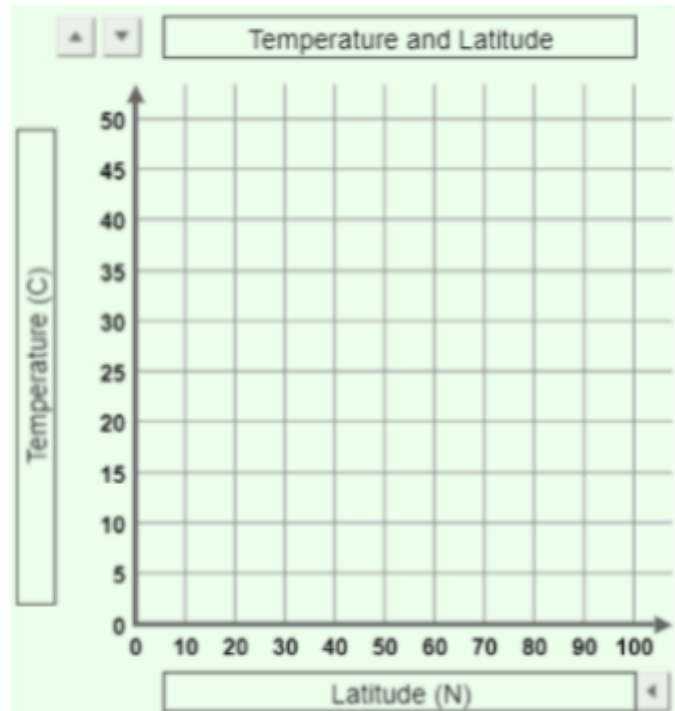
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The data shows latitude and temperature for seven cities. Create a scatter plot to represent the data.

Temp. and Latitude Data

City	Lat. (N)	Temp. (C)
Anchorage	61	2
Chicago	41	9
Denver	39	10
Honolulu	21	25
Miami	28	24
New York	40	13
L. Angeles	34	17



16. What are the variables represented in this graph?

17. What is the relationship that this graph demonstrates?

Fill in the blanks of the following sentence frame to create your response:

As the _____, the _____.

18. Use the following sentence frame to compare Honolulu to Anchorage:

Honolulu has a _____ latitude than Anchorage.

Honolulu has a _____ temperature than Anchorage.

19. Based on the completed graph, if a city has a latitude of 10, what would you expect its temperature to be? _____

20. Based on the completed graph, if a city had a temperature of 6, what would you expect its latitude to be? _____