

Name: _____

Foundations

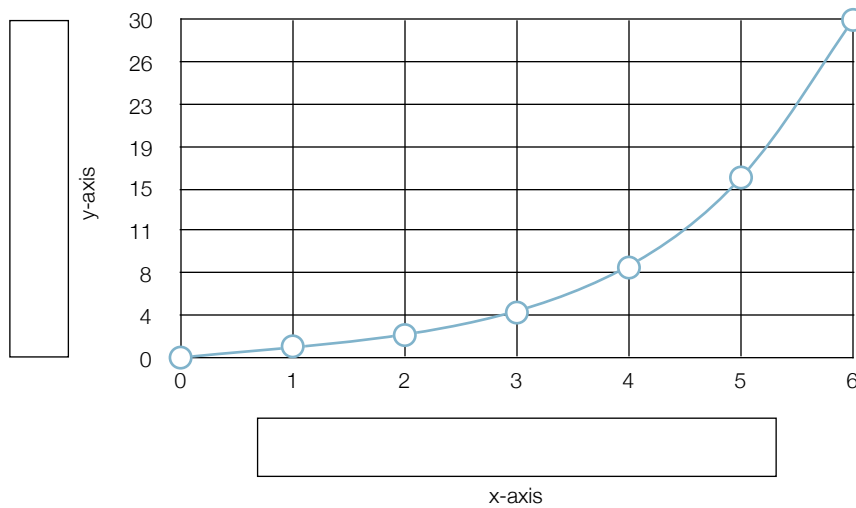
Date: _____ Period: _____

Earth Science

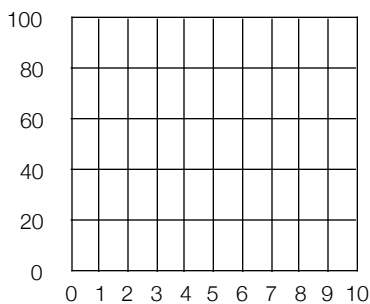
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CLASS NOTES

- An integral part of understanding data is being able to construct and interpret graphs
- A picture-like representation makes data easier to see a _____ or _____ that can be used to _____ data and _____ an event
- Extrapolate - _____
- Dependent Variable - the variable that is measured and affected in an experiment
- Independent Variable - the variable that stands alone and isn't changed by other factors

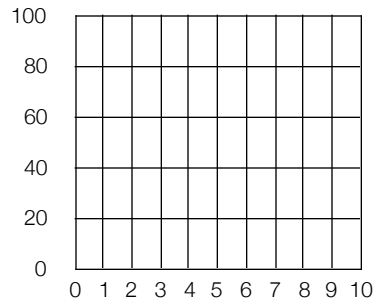


- Direct Relationship - _____

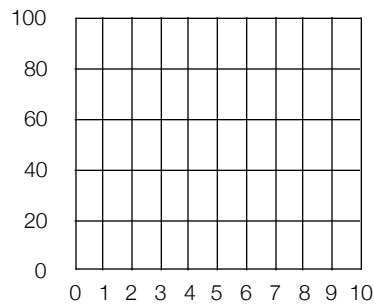


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- Inverse Relationship - _____
-



- Cyclic Change - _____
-



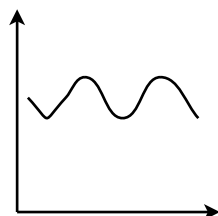
- Rate of Change - the speed at which a variable changes over a specific period of time

$$\text{rate of change} = \frac{\text{change in value}}{\text{time}}$$

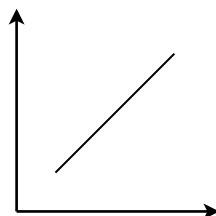
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PART I QUESTIONS: MULTIPLE CHOICE

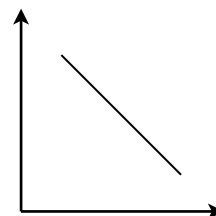
Use the following graphs to answer questions 1 through 4.



GRAPH A



GRAPH B

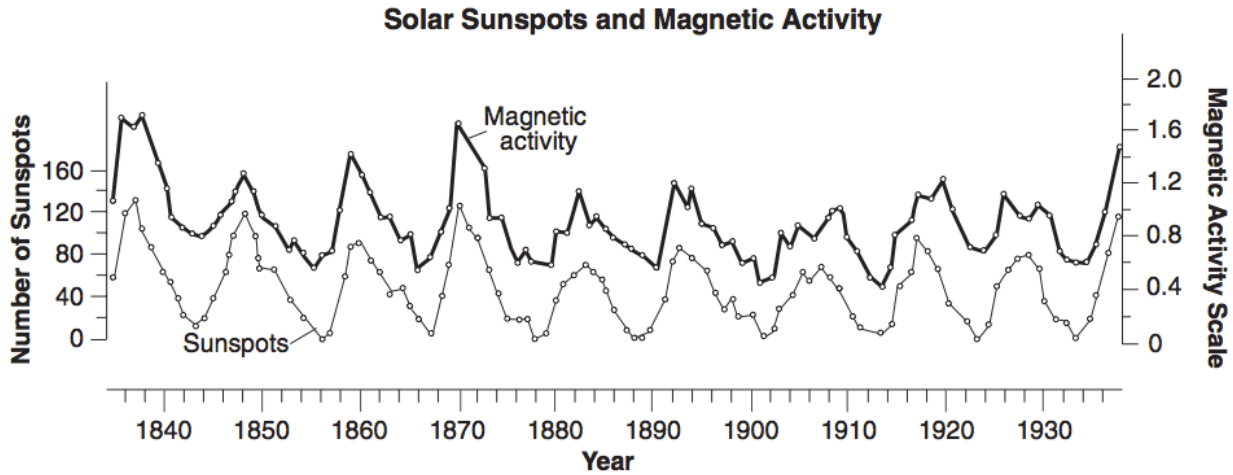


GRAPH C

1. Which graph shows an inverse relationship?
 - a. Graph A
 - b. Graph B
 - c. Graph C
2. Which graph shows a cyclic change?
 - a. Graph A
 - b. Graph B
 - c. Graph C
3. Which graph shows a direct relationship?
 - a. Graph A
 - b. Graph B
 - c. Graph C
4. Which graph could be extrapolated to predict a future event?
 - a. Graph A
 - b. Graph B
 - c. Graph C
 - d. all of the above
5. What is the best example of a cyclic event?
 - a. the appearance of Halley's comet every 76 years
 - b. a hurricane moving up the east coast and hitting Long Island
 - c. an earthquake near Washington DC
 - d. a tsunami striking the east coast of Japan
6. Which event would be most predictable one year in advance of the event?
 - a. the average number of sunspots
 - b. a tsunami in Indonesia
 - c. an earthquake in California
 - d. a volcanic eruption in Japan

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Use the following graph to answer questions 7 through 10.

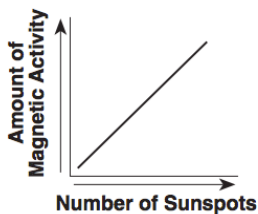


7. Approximately how many sunspots occurred in 1870?
 - a. 1.0 sunspots
 - b. 1.6 sunspots
 - c. 200 sunspots
 - d. 125 sunspots

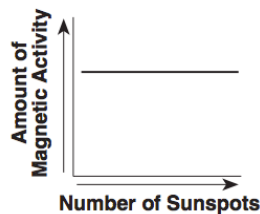
8. What was the approximate magnetic activity in 1870?
 - a. 0.4 on the magnetic activity scale
 - b. 1.0 on the magnetic activity scale
 - c. 1.6 on the magnetic activity scale
 - d. 2.0 on the magnetic activity scale

9. The graph indicates that years having the greatest number of sunspots occur
 - a. randomly and unpredictable
 - b. precisely at the beginning of each decade
 - c. in a cyclic pattern, repeating approximately every 6 years
 - d. in a cyclic pattern, repeating approximately every 11 years

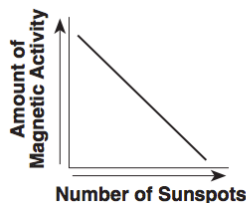
10. Which graph represents the relationship between the number of sunspots and the amount of magnetic activity on the Sun?



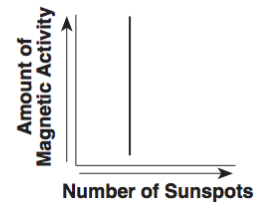
a.



b.



c.



d.