

Exploring Linear Relationships – PowerPoint Presentation

My group members are:

Name: _____

Phone Number: _____

Name: _____

Phone Number: _____

Name: _____

Phone Number: _____

The goal of your group is to create a PowerPoint presentation that gives examples of linear relationships that you see in the world. After watching your group's presentation, one should know what a linear relationship is, get an idea of how you see linear relationships in your daily life, and understand why your examples represent linear relationships. Your group will need to do the following:

- Define what a linear relationship is.
- Come up with a minimum of four examples of linear relationships in your world. All of the information from your examples must be included in your PowerPoint presentation.
- Supply a picture and description of each linear relationship. For example, you have a job, and it pays \$4/hr, so every hour you work, you get an additional \$4.
- Indicate the dependent and independent variables for each example. For the example above, the dependent variable is the total amount of money you make, and the independent variable is the number of hours you work.
- The group must select one of the examples to create a table, a graph, and an equation of the relationship that will be included on your PowerPoint presentation. For the group selected relationship you need to meet the following requirements:
 1. The dependent and independent variable should be clearly indicated on the table.
 2. The table should start at 0 and go to 10 for the independent variable
 3. The graph needs to include a title, labels for both the dependent and independent variables, use equal intervals for each axis, and graph the data from your table.
 4. You should discuss whether or not the points should be connected.
 5. Finally, you should write a rule/equation that represents this linear relationship using variables and explain what each variable represents. For the example above, the equation would look like this $m = 4t$, where m is the total amount of money earned and t is the number of hours worked.

You and your group members will spend one class period planning your presentation. You will submit a plan for your presentation in the form of a storyboard. Your plan will be reviewed by a teacher and returned to you with comments/suggestions. Your group will then meet during class to develop a final draft of your presentation. Next, your group will spend two class periods in the computer lab creating your presentation. If any additional time is needed to complete the presentation, your group may meet during lunch or Home Base in Room 315.

Once all presentations have been completed, we will spend one class period observing your PowerPoint presentations.

Grading

All group members will receive the same grade. If a group member is absent during a class period where we are working on the project, it is the responsibility of that group member to call a member of the group to determine if there is anything that s/he needs to do before the next group meeting. If a group member is absent for a significant portion of the project, that group member will be asked to complete an alternate project.

The Group Grade will be based on the following components:

- _____ Storyboard (10 points)
- _____ Presentation (45 points)

Listed below are components that must appear in your PowerPoint presentation:

- ___ A definition of a linear relationship. (5 POINTS)
- ___ Four examples of linear relationships. Each should include pictures (these may be digital pictures, images downloaded from the Internet, Excel, pictures scanned in, etc.), descriptions, and indication of dependent and independent variables. (10 POINTS)

Listed below are components that must appear in your group-selected example:

- ___ A table with the dependent and independent variables clearly indicated. The table should start at 0 and go to 10 for the independent variable (may use Excel). (5 POINTS)
- ___ A graph of the data in your table. Graph must have a title, labels for both the dependent and independent variables, and use equal intervals for each axis (may use digital picture of graph or Excel). (5 POINTS)
- ___ A discussion on whether or not the points should be connected. (5 POINTS)
- ___ Write a rule/equation that represents this linear relationship using variables and explain what each variable represents. (5 POINTS)

Presentation Points:

- ___ Clear and easy to understand presentation (Did you get the message across?) (5 POINTS)
- ___ Use of sound, graphics, and animation (Do they get your attention without taking away from the message?) (5 POINTS)

Grade Sheet for Exploring Linear Relationships – PowerPoint Presentation

Names of Group Members:

Listed below are definition and examples components that must appear in your PowerPoint presentation:

- ___ A definition of a linear relationship. (5 POINTS)
- ___ Four examples of linear relationships. Each should include pictures (these may be digital pictures, images downloaded from the Internet, pictures scanned in, etc.), descriptions, and indication of dependent and independent variables. (10 POINTS)

Listed below are the group selected example components that must appear in your PowerPoint presentation:

- ___ A table with the dependent and independent variables clearly indicated. The table should start at 0 and go to 10 for the independent variable (may use Excel). (5 POINTS)
- ___ A graph of the data in your table. Graph must have a title, labels for both the dependent and independent variables, and use equal intervals for each axis (may use digital picture of graph or Excel). (5 POINTS)
- ___ A discussion on whether or not the points should be connected. (5 POINTS)
- ___ Write a rule/equation that represents this linear relationship using variables and explain what each variable represents. (5 POINTS)

Presentation Points:

- ___ Clear and easy to understand presentation (Did you get the message across?) (5 POINTS)
- ___ Use of sound, graphics, and animation (Do they get your attention without taking away from the message?) (5 POINTS)

_____ TOTAL NUMBER OF POINTS (45 POINTS POSSIBLE)

Comments: