**Analyzing Relationships on the Coordinate Plane: Finding a Fair Meeting Place**

To get credit for the project, you have to neatly show the work and write an explanation.

You can get a B if you CORRECTLY AND INDIVIDUALLY answer all the questions below.

To get an A, your explanation should be in essay form.

**Questions to Answer:**

1. Write the 2 questions similar to the way I wrote them in the problem, but in your own words.
2. Then re-write the questions in math language.
3. Explain why we put the locations on graph paper.
4. Explain how the graph paper helped us find the distance and the midpoint.
5. Show the work to find the **midpoint** and the **distance** from the restaurant to the stadium.

NEATLY!!!

Convert the answers into miles. Remember, 1 unit on graph paper is the same as 0.15 miles.

1. Explain why we didn’t want to meet at the midpoint.
2. Explain what we did to find another fair meeting place.
3. What made the new answers fair? Make sure you use a fancy math term to explain it.

**Key Words to use:**

Coordinates Perpendicular Bisector Midpoint Formula

Equidistant Midpoint Construct

Distance Distance Formula Formula

Endpoints

Rubric: Finding a Fair Meeting Place

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| --- | --- | --- | --- | --- | --- |
| Question | 1 point | 2 points | 3 points | 4 points | 5 points |
| 1 | Writes 1 question in an unclear way or copies the words I used. | Writes 2 questions in an unclear way or copies the words I used. | Writes 1 question in own words understandably.  Writes 2nd question unclearly. | Writes 2 questions in own words understandably. | Writes 2 questions in own words articulately. |
| 2 | Restates 1 or 2 questions without using mathematical terms and/or is unclear. | Restates 2 questions clearly but without using mathematical terms. | Restates 1 question correctly using mathematical terms. Other question is unclear or doesn’t use correct math terms. | Restates 2 questions using mathematical terms. | Restates 2 questions using mathematical terms and articulately. |
| 3 & 4 | Incorrectly explains how graphing helped us but uses relevant key words. | Explains how graphing locations helped us but does not any use key words. | Correctly explains  how graphing locations provided an easy way to discuss and answer the questions.  Uses 2 key words. | Correctly explains how graphing locations provided an easy way to discuss and answer the questions.  Uses 3 key words. | Correctly and articulately explains how graphing locations provided an easy way to discuss and answer the questions.  Uses 3 key words. |
| 5 | Attempts to find distance and/or midpoint but does not do either correctly. Shows all work. | Finds either midpoint **or** distance correctly. Shows all work. | Finds either midpoint **or** distance correctly. Shows all work.  Converts distance to miles. | Correctly finds both midpoint **and** distance. Shows all work. | Correctly finds both midpoint **and** distance. Shows all work. Converts distance to miles. |
| 6 | Does not give a real-life reason why the midpoint was undesirable. Only states that we didn’t want to eat there. |  | Explains where the midpoint was and one reason why we didn’t want to eat there. |  |  |
| 7 | Attempts to explain what we did but doesn’t make sense. | Explains what we were trying to do when we made the figure but didn’t use any key words. | Correctly and articulately names the figure we made. Uses 1 key word. | Correctly names the figure we made. Uses 2 key words. | Correctly and articulately names the figure we made. Uses 2 key words. |
| 8 | Attempts to explain why the points on the new line are fair but doesn’t do it successfully. | Correctly explains why the new locations on the new line are fair. Uses 0 key words but uses regular words with the same meaning. | Correctly explains why the new locations on the new line are fair. Uses 1 key word. | Correctly explains why the new locations on the new line are fair. Uses 2 key words. | Correctly explains why the new locations on the new line are fair. Uses 3 key words. |
| Total: /33 x 1.00 if in essay form. /33 x .85 if in a list. | | | | | |