

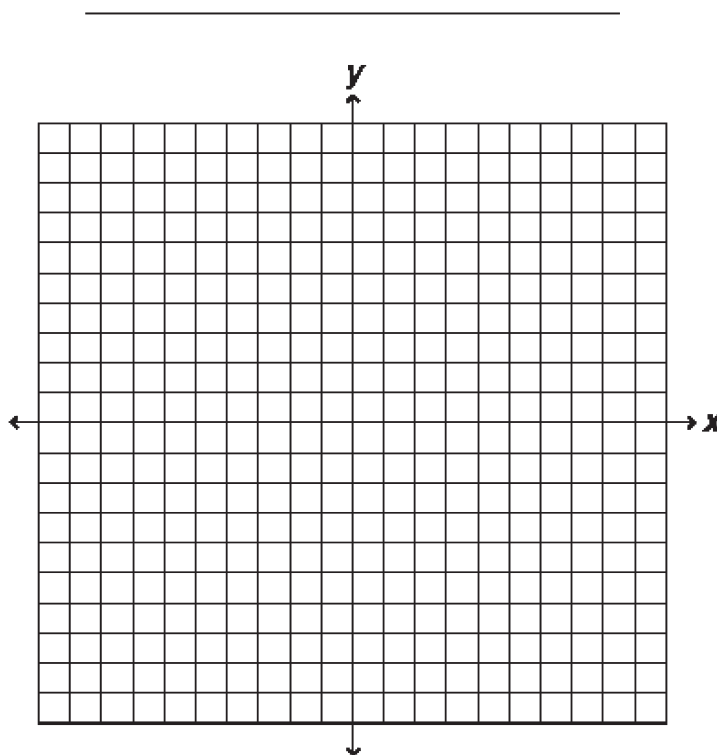
10. The table shows the relationship between some Fahrenheit temperatures and their Celsius equivalents.

°Fahrenheit	°Celsius
-13	-25
-4	-20
5	-15
23	-5
32	0
50	10
68	20

Use this information to make a graph that shows Fahrenheit temperature on one axis and Celsius temperature on the other.

Be sure to include:

- An informative title that tells who and what the graph is about
- Appropriate scales for the axes
- Accurate labels for the axes



Scoring Rubric

High School Mathematics WASL Practice Test Item 10

Strand: Communicates Understanding

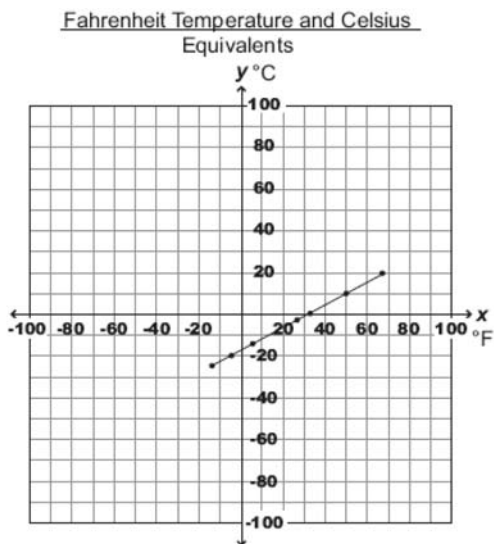
CU02 Learning Target: (Organize, Represent, and Share Information) Organize, clarify, and refine mathematical information for a given purpose; use everyday and mathematical language and notation in appropriate and efficient forms to clearly express or represent complex ideas and information; explain and/or represent complex mathematical ideas and information in ways appropriate for audience and purpose in a context that is relevant to tenth grade students (4.2.1, 4.2.2, 4.2.3)

A 2-point response: The student clearly represents the given information in a graph by including:

- two consistent and two appropriate scales
- labels on both axes
- an informative title that tells who and what the graph is about
- accurately plotted points

Allow for one error which may include the following: a missing title, a missing label, and inconsistent scale or an incorrectly plotted point

Example:



A 1-point response: The student draws a partially accurate graph of the relationship between Celsius and Fahrenheit. The graph has two or three errors.

NOTE: Two missing labels are considered two errors.

NOTE: Signs switched on axis scale are considered an error (i.e., negative on right side of x-axis and positive on left side of x-axis).

A 0-point response: The student shows little or no mathematical understanding of representing information in a graph. For example, it has four or more errors or plots the data points as the scale.

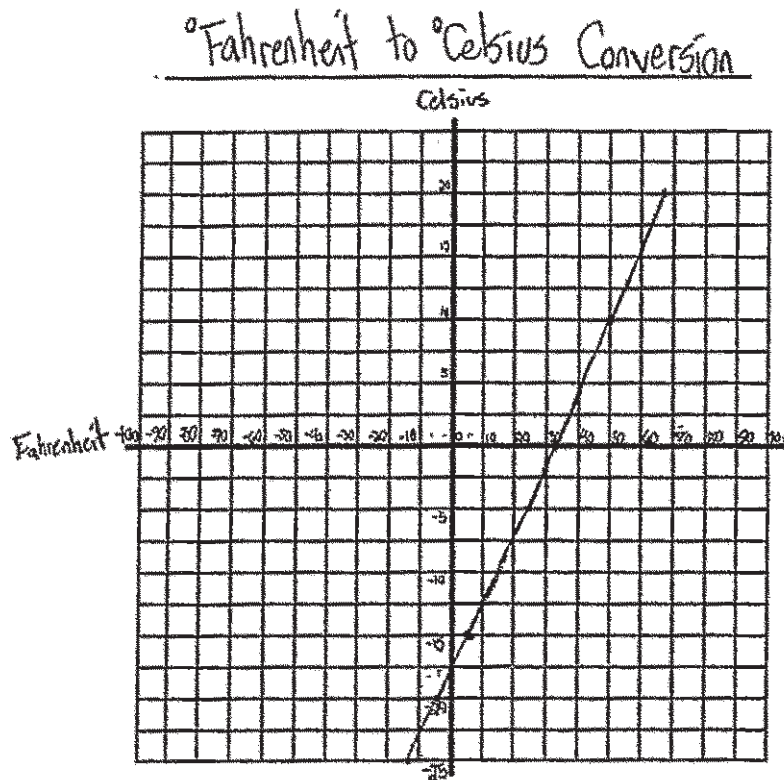
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Score:

2

Annotation:

The student shows understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The response includes correctly plotted points, two consistent and appropriate scales, an appropriate title and appropriate labels on both axes. This response earns two points.

10. The table shows the relationship between some Fahrenheit temperatures and their Celsius equivalents.

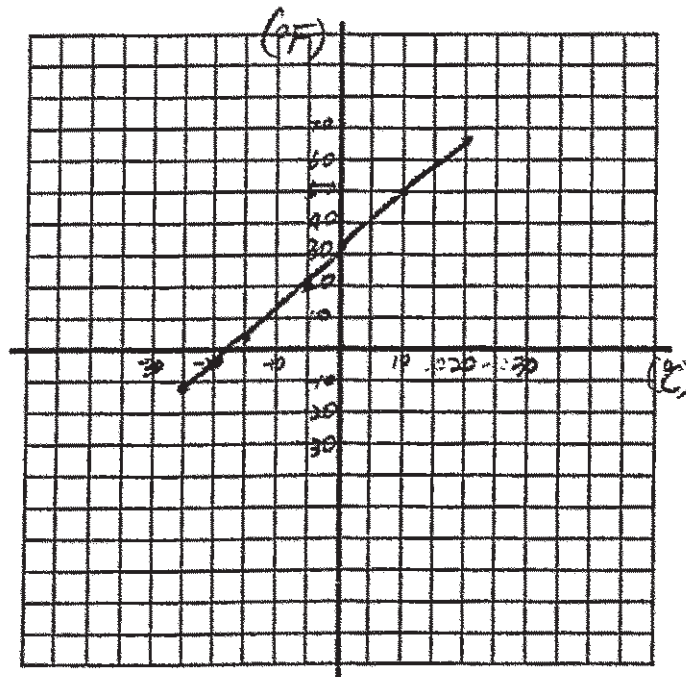
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Graph between Fahrenheit and Celsius.



$$F = \frac{9}{5}C + 32$$

Score:

2

Annotation:

The student shows understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The response includes correctly plotted points, two consistent and appropriate scales, an appropriate title and appropriate labels on both axes. This response earns two points.

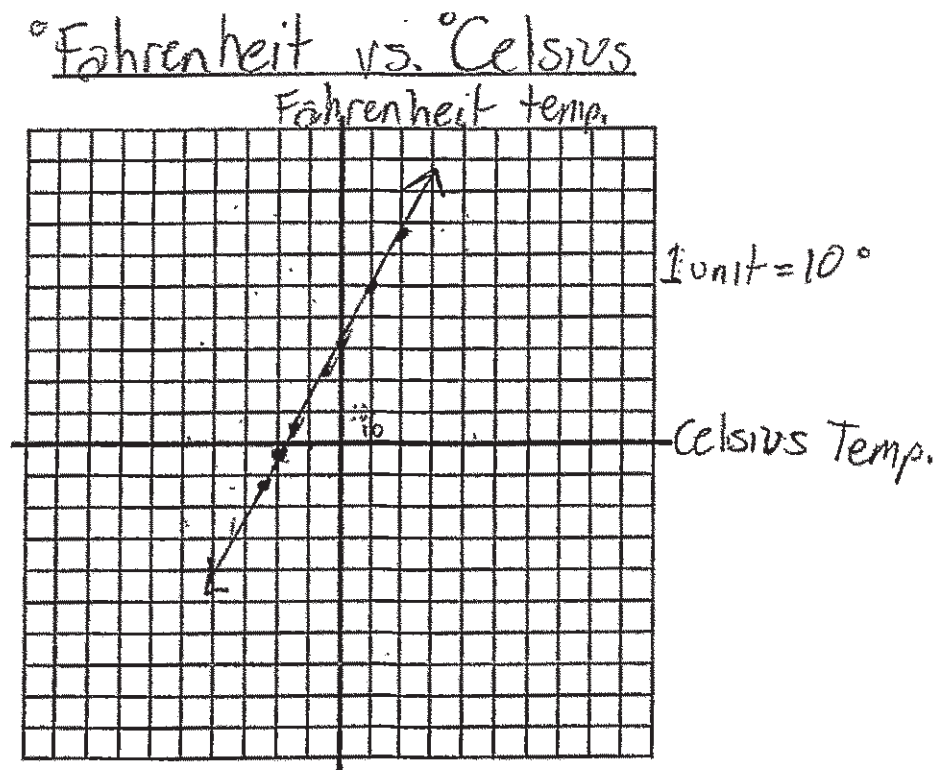
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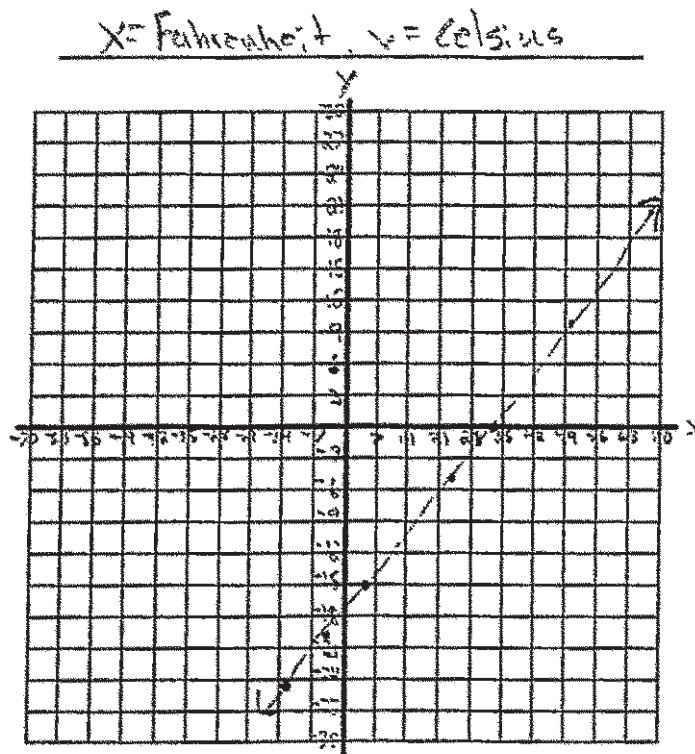
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Score:

2

Annotation:

The student shows understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The response includes correctly plotted points, two consistent and appropriate scales, and appropriate labels on both axes. The response has an inappropriate title. This response earns two points.

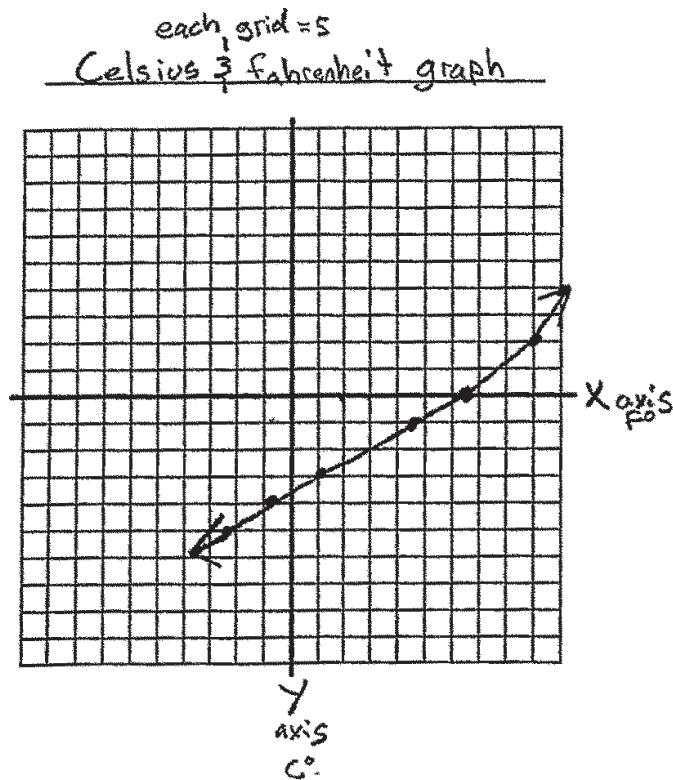
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- An informative title that tells who and what the graph is about
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Score:

1

Annotation:

The student shows partial understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The response includes two consistent but inappropriate scales, an appropriate title, and appropriate labels on both axes. Two points are misplotted (68, 20) and (50, 10), which is two errors. The response earns one point.

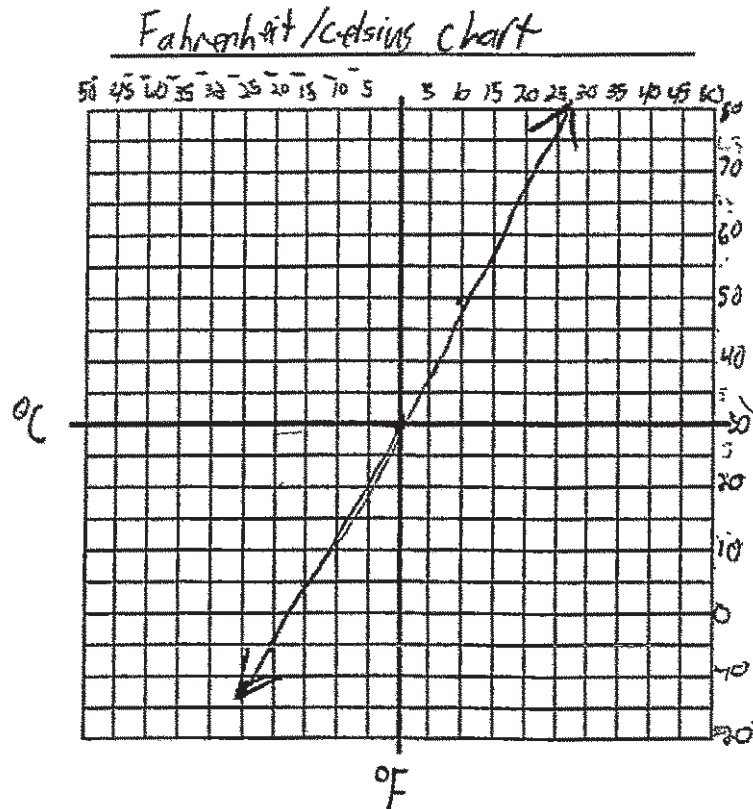
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Be sure to include:

- An informative title that tells who and what the graph is about
- Appropriate scale for the axes
- Accurate labels for the axes



Score:

1

Annotation:

The student shows partial understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The response includes two consistent scales, with appropriate labels on both axes. Two points are misplotted (-5, 23) and (0, 32), and there is an incomplete title. This response earns one point.

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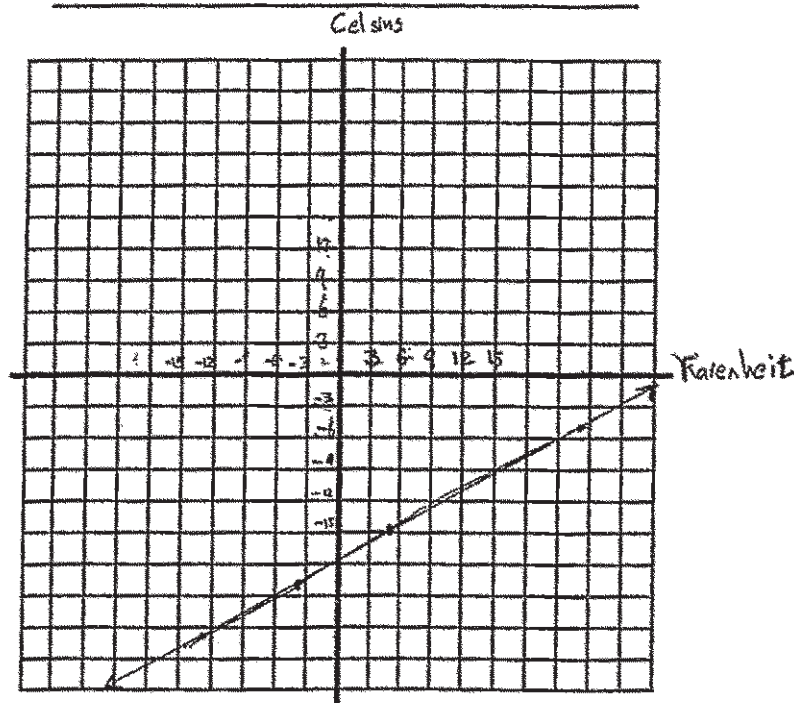
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- Appropriate scale for the axes
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Comparison of Celsius and Fahrenheit



Score:

1

Annotation:

The student shows partial understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The response includes two consistent but inappropriate scales, an appropriate title, and appropriate labels on both axes. An inappropriate scale caused three points to be omitted: (32, 0), (50, 10), and (68, 20). This response earns one point.

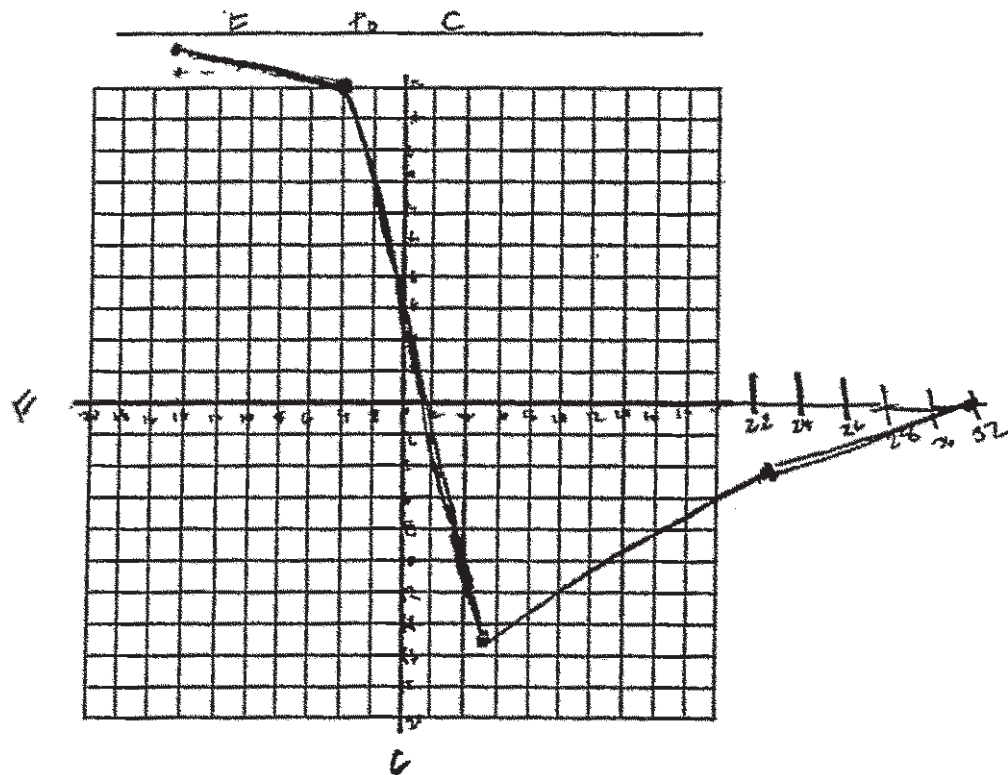
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Score:

0

Annotation:

The student shows little or no understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The graph includes two consistent but inappropriate scales, an incomplete title, and appropriate labels on both axes. Two points are misplotted (-13, -25) and (-4, -20) due to an inappropriate scale plus (50, 10) and (68, 20) are missing. This response errors earns zero points.

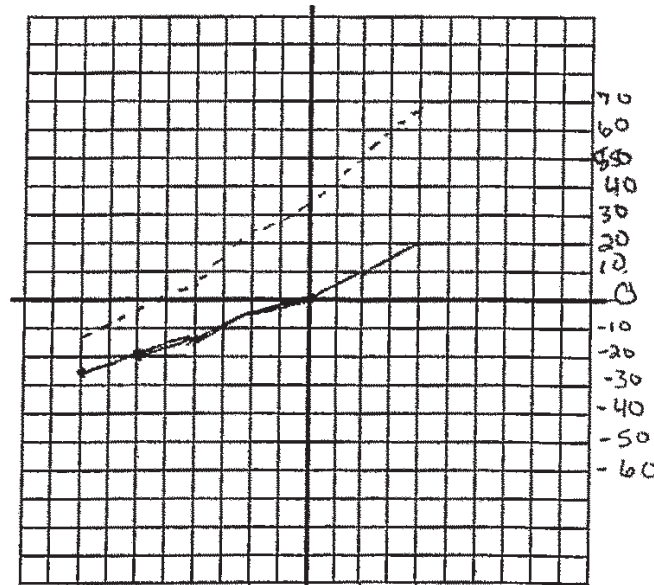
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- Accurate labels for the axes

Fahrenheit & Celsius equivalents



temperatures from 1960 above
 Same actual temperature
 — Celsius
 --- Fahrenheit

Score:
 0

Annotation:
 The student shows little or no understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The graph shows two lines, one for Celsius and one for Fahrenheit. This response earns zero points.

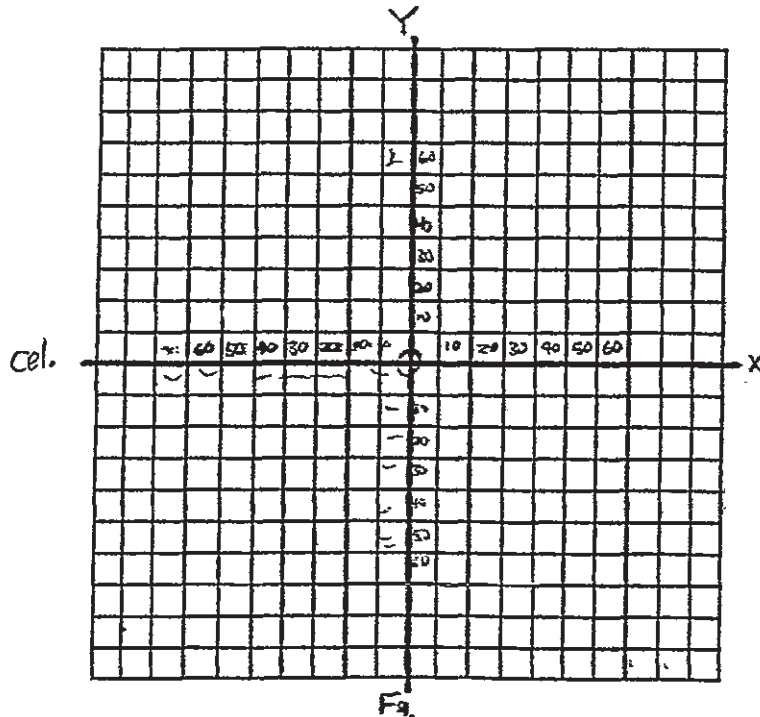
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Score:

0

Annotation:

The student shows little or no understanding of how to effectively and appropriately organize and represent mathematical information in a graph. The graph includes two consistent and appropriate scales and labels on both axes. However, no title is given and no points are plotted. This response earns zero points.

