Multiple Representations

Concept = Point-Slope Form

Directions:

In each problem a piece of information is given. Students will use this information to determine the information that should appear in the other boxes.

GRAPH: Information should include the graph of the line.

SYMBOLIC: Information can include the 1 point $(\boldsymbol{x_1}, \boldsymbol{y_1})$**,** the slope in the form of $m = c$, and the point-slope form of the equation of the line

ALGEBRAIC: Information can include point-slope formula and computational work used to determine the point slope form and/or a description of how the other points in the table were found using rise over run and the graph.

TABLE: Information can include several points that lie on the graph of the line including the intercepts

VERBAL: Information can include complete sentences stating conclusions that can be drawn through the consideration of the information from the other representations such as the slope of the line (positive slope, negative slope, undefined slope, and zero slope), the type of line (horizontal, vertical, increasing, decreasing) and/or the intercepts. Also can include a point and the equation.

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Point-Slope Form **Name** _____

TABLE

x	y

ALGEBRAIC

VERBAL

CONCEPT

_____

SYMBOLIC

$m = 0, (2, 4)$

GRAPH

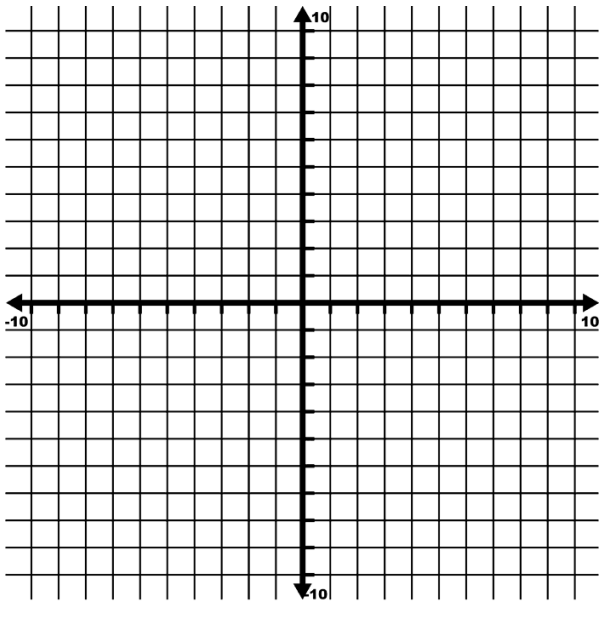

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TABLE

x	y

ALGEBRAIC

VERBAL

CONCEPT

SYMBOLIC

$$y + 5 = \frac{2}{5}(x - 4)$$

GRAPH

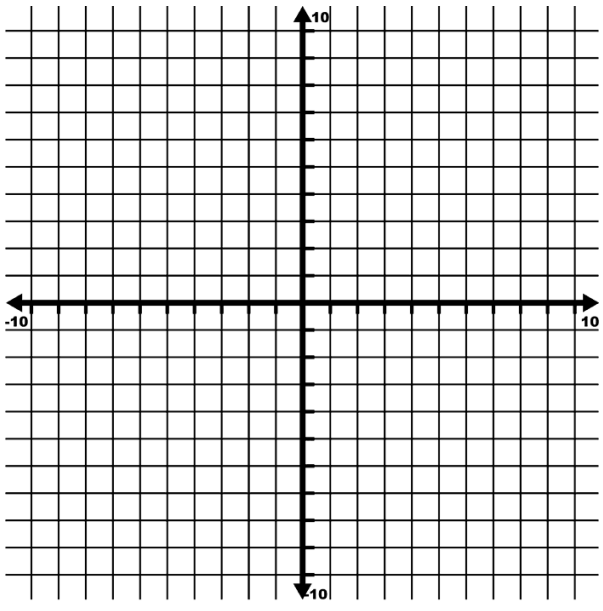

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TABLE

x	y

ALGEBRAIC

VERBAL

CONCEPT

SYMBOLIC

GRAPH

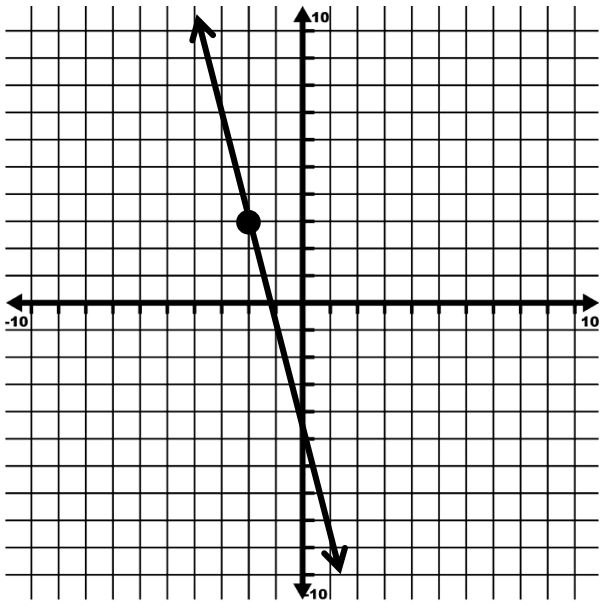

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TABLE

x	y

ALGEBRAIC

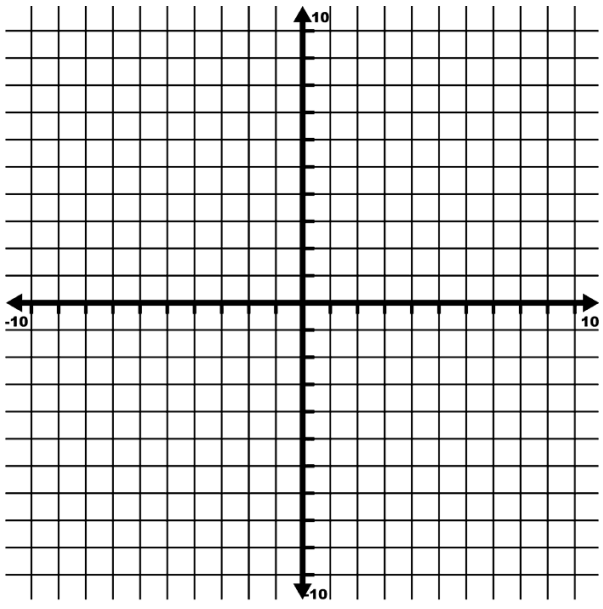
VERBAL

The graph of this line passes through the point $(-3, -7)$. The slope of this line is undefined.

CONCEPT

SYMBOLIC

GRAPH



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