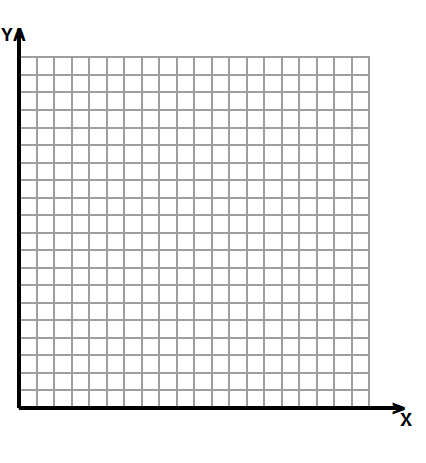
Name Date

1. Give the coordinates of each point.



0 1 1 2 2 3 3 4 4 5

1

1

2

2

3

3

4

4

5

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Plot each point in the coordinate plane above, and label each point with , , or .

(0, 4) (2, 1) (, )

1. Give coordinates for three points that are on the same vertical line. Include at least one point that has a mixed number as a coordinate.
2. Give coordinates for three points that are on the same horizontal line. Include at least one point that has a fraction as a coordinate.
3. Garrett and Jeffrey are planning a treasure hunt. They decide to place a treasure at a point that is a distance of 5 units from the -axis and 3 units from the -axis. Jeffrey places a treasure at point and Garrett places one at point . Who put the treasure in the right place? Explain how you know.

7

6

5

4

3

2

1

0

1

2

3

4

5

6

7

8

*x*

*y*

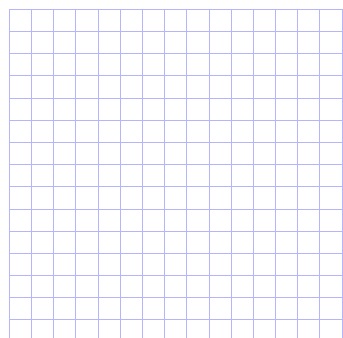
1. 1. Find the -coordinates by following the rules given for each table.

**Table A: Multiply by Table B: Multiply by**

|  |  |
| --- | --- |
|  |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |

|  |  |
| --- | --- |
|  |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |

* 1. Graph and label the coordinate pairs from Table A. Connect the points and label the line . Graph and label the coordinate pairs from Table B. Connect the points and label the line .



1 2 3

1

2

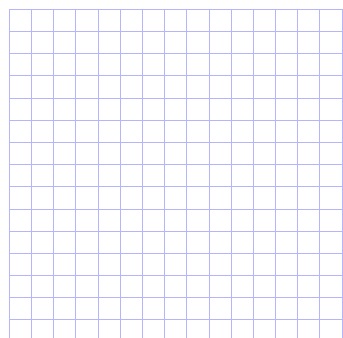
3

*x*

*y*

c. Describe the relationship between the -coordinates in Table A and Table B that have the same -coordinate.

* 1. Use the graph to give the coordinate pairs of the points marked on the line.



5 10

5

10

|  |  |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. Write the rule that describes the relationship between the *x-* and *y*-coordinates.

b. Using this rule, generate three more points that would be on this line but lie beyond the portion of the coordinate plane that is pictured.

|  |
| --- |
| Mid-Module Assessment Task Topics A–B  Standards Addressed |
| Write and interpret numerical expressions.  **5.OA.2** Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation “add 8 and 7, then multiply by 2” as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product*.  **Analyze patterns and relationships.**  **5.OA.3** Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.*  Graph points on the coordinate plane to solve real-world and mathematical problems.  **5.G.1** Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., -axis and -coordinate, -axis and -coordinate). |

Evaluating Student Learning Outcomes

A Progression Toward Mastery is provided to describe steps that illuminate the gradually increasing understandings that students develop *on their way to proficiency.* In this chart, this progress is presented from left (Step 1) to right (Step 4).  The learning goal for each student is to achieve Step 4 mastery.  These steps are meant to help teachers and students identify and celebrate what the student CAN do now and what they need to work on next.

| A Progression Toward Mastery | | | | |
| --- | --- | --- | --- | --- |
| Assessment  Task Item  and  Standards Assessed | STEP 1  Little evidence of reasoning without a correct answer.  (1 Point) | STEP 2  Evidence of some reasoning without a correct answer.  (2 Points) | STEP 3  Evidence of some reasoning with a correct answer or evidence of solid reasoning with an incorrect answer.  (3 Points) | STEP 4  Evidence of solid reasoning with a correct answer.  (4 Points) |
| **1**  5.G.1 | The student gives the coordinates for one point on the plane and uses correct notation, including parentheses and a comma. | The student gives the coordinates for two points on the plane and uses correct notation, including parentheses and a comma. | The student gives the coordinates for three points on the plane and uses correct notation, including parentheses and a comma. | The student correctly gives the coordinates for four or five points using correct notation as:  A (3, 4)  B (4, 2)  C (, )  D (1, 2)  E (, ) |
| **2**  5.G.1 | The student plots one point, but does not label it. | The student plots one point with label or two points without labels. | The student is able to correctly plot three points, but does not label them. | The student correctly:   * Plots three points * Labels the points on the grid. |
| **3**  5.G.1  5.OA.3 | The student is unable to give coordinates for points on the same vertical line or horizontal line. | The student gives coordinates for two points on the same vertical line *or* horizontal line. | The student gives two coordinates on the same vertical line and two coordinates on the same horizontal line. | The student:   * Gives three collinear points on a vertical line (all three points have the same -coordinate). * Gives three collinear points on a horizontal line (all three points have the same -coordinate). |
| **4**  5.G.1 | The student is neither able to identify Garrett’s placement as correct nor able to explain the reasoning used. | The student is unable to identify Garrett’s placement as correct, but does explain the reasoning used. | The student identifies Garrett’s placement as correct, but the explanation lacks clarity. | The student:   * Identifies Garrett’s placement as correct. * Clearly explains the reasoning used. |
| **5**  5.G.1  5.OA.2  5.OA.3 | The student:   * Partially completes the tables in Part (a). * Plots a few points in Part (b), but does not connect the points with a line. * Makes no attempt to describe the relationship between the corresponding terms. | The student:   * Correctly completes the tables in Part (a). * Plots some points in Part (b), but does not connect the points with a line. * Incorrectly describes the relationship between corresponding terms. | The student:   * Correctly completes the tables in Part (a) * Plots all points in Part (b), connecting the points with a line. * Describes the relationship between corresponding terms, but the explanation lacks clarity. | The student:   * Correctly completes the tables in Part (a).   Table A:  (0, 0); (1, ); (2, 1); (3, )  Table B:  (0,0); (1,); (2, );  (3, )   * Plots all points in Part (b), connecting the points with a line. * Correctly describes the relationship between corresponding terms such that terms in Table A are twice the terms in Table B, or that B is half of A using words or notation (e.g., Multiply A by 2, A is twice as much as B, B is half of A,  2 A = B or B = A). |
| **6**  5.G.1  5.OA.3 | The student is able to identify some of the ordered pairs from the graph, but is unable to generate other collinear points. | The student either correctly identifies the ordered pairs from the graph or generates other collinear points. | The student correctly identifies the ordered pairs from the graph, but generates collinear points that lie on the portion of the grid that is pictured. | The student:   * Correctly identifies the ordered pairs from the graph as (1,4); (2,6); (3,8); (4,10); (5,12). * Generates three collinear points whose -coordinates are greater than 14 and/or whose -coordinates are greater than 30. |

