Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Table #: \_\_\_\_\_\_ Period: \_\_\_\_\_\_\_ Date: \_\_\_\_\_\_

**4.2B The Slope Formula\_Classwork**

*Objective: Determine whether 3 points are collinear. Given the slope and one point, find the missing value of an ordered pair. . CCSS: 8.EE.6* ***HW: (4.2B) p. 154 #21-25, 27-31, 33***

**Collinear is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*Applying the slope formula*

|  |  |
| --- | --- |
| **EXAMPLE 1:**  Do the points A(-3, 2), B(-1, 5), and C(1, 8) lie on the same line? Without using a graph, how do you know? | **EXAMPLE 2:**  Do the point D(7, 3), E(5, 5), and F (3, 4) lies on the same line? Without using a graph, how do you know? |

Use an equation to find the value of k so that the line that passes throw the given points has the given slope. Use the slope formula:

|  |  |
| --- | --- |
| **EXAMPLE 3:**  (4, -2) and (0, k); m = -1 | **EXAMPLE 4:**  (-3, k) and (1, 4); m = |
| **EXAMPLE 5**  (k, -5) and (-4,-2 ); m = | **EXAMPLE 6:**  (2, 8) and (k, 2); m = 2 |

**Critical Thinking**

|  |
| --- |
| Is it more difficult to walk up the ramp or the hill? **EXPLAIN**. |

**PRACTICE PROBLEMS:**

|  |  |
| --- | --- |
| 1. Do the points A(4,-5), B(0, -3), and C(-4, 2) lie on the same line? Without using a graph, how do you know? | 1. Do the point D(-3, 2), E(-5, 5), and F (-7, 8) lies on the same line? Without using a graph, how do you know? |
| 1. Find the value of k: (1, -2) and (k, 0); m = 1 | 1. Find the value of k: (3, k) and (7, 3); m = |

***\*\*\*\**\*\*WARM-UP\*\*\*\*\***

|  |  |
| --- | --- |
| EXAMPLE 1: Solve for y. | EXAMPLE 2: Solve for y |
| 1. Solve for y. | 1. Solve for y. |