**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per.\_\_\_\_\_\_\_**

**U4 CWK # 4** *Finding Slope from Two Points*

Calculate the slope of the following graphs:

|  |  |
| --- | --- |
| * + 1.

 | * + 1.

 |

Graph the following pairs of points. Use the graph to determine the slope.

|  |  |
| --- | --- |
| * + 1. points: (4, 3) and (0, 1)

 | * + 1. points: (1, 4) and (-2, 6)

 |

Find the rise and run and slope of each line shown below. You will have to think of a way to use the coordinate points to find the rise and run.

|  |  |  |
| --- | --- | --- |
| 1.

 | 1.
 | 1.
 |
| 1.

 | 1.
 | 1.
 |

1. Graphing points can be time-consuming. Develop a procedure for calculating the slope without graphing each point. Discuss and compare your method for calculating slope without using right triangles on a graph with someone else.
2. Now discuss this formula: slope = m = What does it mean? How does it work? 

Fill in the missing information in the problems below. Use the empty box to calculate slope using the formula, . The first one has been done for you.

|  |  |  |  |
| --- | --- | --- | --- |
| 1. (-4, -4) (1, 6)
 | 1. (-3, -6) (6, 0)
 | 1. (4, -3) (-5, 9)
 | 1. (-4, -2) (2, 1)
 |
| $m=\frac{6--4}{1--4}= \frac{10}{5}$ | $m=\frac{0--6}{6--3}= \frac{}{}$ |  |  |
|  |  |  |  |
| Sketch the line: | Sketch the line: | Sketch the line: | Sketch the line: |

|  |  |  |  |
| --- | --- | --- | --- |
| 1. (-3, -5) (5, -5)
 | 21. (-5, -7) (-5, -3) | 22. (-3, -1) (-1, -3) | 23. (-1 , -7) (0, -2) |
|  |  |  |  |
|  |  |  |  |
| Sketch the line: | Sketch the line: | Sketch the line: | Sketch the line: |

|  |  |  |  |
| --- | --- | --- | --- |
| 24. ( \_\_ , \_\_) ( \_\_, \_\_ ) | 25. ( \_\_, \_\_ ) ( \_\_ , \_\_ ) | 26. ( -2, -7) (-1, -3) | 27. ( -7, 6) (6, -7) |
| $m=\frac{1-4}{6--3}= \frac{}{}$ | $m=\frac{-4-5}{2-2}= \frac{}{}$ |  |  |
|  |  |  |  |
| Sketch the line: | Sketch the line: | Sketch the line: | Sketch the line: |

### Now that we have worked on graphing points and finding slopes, what do you think might be a common misunderstanding between graphing a point and finding or using the slope of a line?

### Write down your thoughts:

IMPORTANT: This is the biggest misconception you will have ALL year!!

 

Graphing a point: Finding or using slope:

Move x spaces first, Count y spaces first,

 then move y spaces. then count x spaces.