**Unit 2- Lesson 2: Calculating Slope from Graphs, Sets of Points, & Tables**

**SWBAT: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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| **Slope** | Definition: | Examples: |
| **Independent Variable (X)** | Definition | Example |
| **Dependent Variable (Y)** | Definition | Example |

**Slope from a line** $\frac{Rise (change in y)}{Run (change in x)}$

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 | 1.
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**Explore – Slope from a Table**

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| **Example 4: The table below shows the distance the Viking Band marches over time**

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| --- | --- |
| Time (min) | Distance (ft) |
| 1 | 260 |
| 2 | 520 |
| 3 | 780 |
| 4 | 1040 |

 | 1. What is the independent Variable? \_\_\_\_\_\_\_\_\_\_\_2. What is the dependent variable? \_\_\_\_\_\_\_\_\_\_\_\_3. What is the change in distance? \_\_\_\_\_\_\_\_\_\_\_\_\_4. What is the change in time? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_5. What is the slope? \_\_\_\_\_\_\_\_\_6. Complete the sentence: The band marches \_\_\_\_\_\_ feet every \_\_\_\_\_\_\_ minute(s) |
| **Example 5: A plane is currently making its landing at DFW airport. The table below represents its descent.**

|  |  |
| --- | --- |
| Time (min) | Distance (ft) |
| 0 | 40,000 |
| 3 | 37,900 |
| 7 | 35,100 |
| 18 | 27,400 |

 | 1. What is the independent Variable? \_\_\_\_\_\_\_\_\_\_\_2. What is the dependent variable? \_\_\_\_\_\_\_\_\_\_\_\_3. What is the change in distance? \_\_\_\_\_\_\_\_\_\_\_\_\_4. What is the change in time? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_5. What is the slope? \_\_\_\_\_\_\_\_\_6. Complete the sentence: The plane descends \_\_\_\_\_\_ feet every \_\_\_\_\_\_\_ minute(s) |

**Explore: Slope from 2 points**

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| 6. (-1,0) and (3,-2) | 7. (-2,1) and (7,1) | 8. (1,3) and (5,5) |
| 9. The total cost, including shipping, for ordering 5 uniforms is $66. The total cost, including shipping for ordering 9 uniforms is $114. | 10. A babysitter earns $9 for 1 h and $36 for 4 h. | 11. The length of a bus route is 4 miles long on the 6th day and 4 miles long on the seventeenth day.  |

**Independent Practice**

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| 1. Find the slope of the table below and write a sentence explaining its meaningTurtle Walking

|  |  |
| --- | --- |
| Time(min) | Distance (m) |
| 1 | 6 |
| 2 | 12 |
| 4 | 24 |
| 6 | 36 |

The turtle is walking \_\_\_\_\_ m per \_\_\_\_\_ | 2. Find the slope of the graph below | 3. Find the slope of the line that passes through the points (2,6) and (-1,2) |
| 4. Karina is saving money for a new bicycle. After 2 weeks of saving, she has $250. After 4 weeks of saving, she has $300.  | 5. Find the slope of a line that passes through the points (-2,3) and (0,4) |

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| --- | --- |
| X (days) | Y (miles run) |
| 3 | 7 |
| 4 | 9 |
| 5 | 11 |

6. Find the slope from the table below and write a sentence explaining its meaning |
| 7. Is y a function of x for the graph in number 2? | 8. What is the slope of the graph below.The value of the van (decreased/increased) by \_\_\_\_\_\_\_\_ each \_\_\_\_\_\_\_\_\_ | 9. A car is 200 km from its destination after 1 h and 80 km from its destination after 3 h. |