**Math 11 AWP Unit 5 – Slope and Rates of Change**

Assignment 5 – Slope and Rate of Change

1. The line on a graph has the following points. Calculate the slope of the line.
2. (0, 0) and (4, 204) b. (12, 3) and (16, 4.5)
3. (150, 3) and (25, 6)
4. Use the graph to draw the following
5. Draw a solid line on the graph that passes through point (0, 0) and has a slope of 5/4.
6. Draw a dotted line on the graph that passes through point (2, 1) and has a slope of 2/3



1. Henrik earns $64.80 in 6 hours at his weekend job. Javier earns $56.25 in 5 hours.
2. Calculate their earnings for five different lengths of time.
3. On the same graph, draw a solid line indicating Henrik’s earnings and a dotted line showing Javier’s earnings.



1. Janice is a real estate agent. When she makes a sale, she earns a commission of 4% of the value of the house. She earned $7560.00 on the sale of a house. What was the selling price?
2. Rita is participating in a cycling trip. After 2 hours and 15 minutes of cycling, she takes a rest. She has travelled 40 km. She then continues cycling and stops at a location 75 km from her starting point. She has cycled a total of 4 hours.
3. What was her average rate of travel between the 40 km stop and the 75 km stop?
4. If she continues at the same rate, how far will she have travelled after 6 hours of cycling in total?
5. Sheila and Brandy are on a backpacking trip.
6. If Sheila walked 28.8 km in 6 hours and Brandy walked 32.2 km in 7 hours, who is the faster walker?
7. Graph their walking rates on the same graph.



1. How long does it take each of them to walk 10 km?
2. Water flows from a tank at a rate of 1500 litres per minute. The tank has a volume of 480 000 L.
3. Fill in the following table showing how much water is left in 30 minute intervals.

|  |  |
| --- | --- |
| Time elapsed (minutes) | Volume of water remaining (L) |
| 0 |  |
| 30 |  |
| 60 |  |
| 90 |  |
| 120 |  |
| 150 |  |

1. Draw a graph of the date.



1. Calculate the slope. What does it represent?
2. When will the tank be empty?