**Mini-Lesson #1 – Rates and Rate Tables (Unit 5 - Math 7)**

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| **Vocabulary:**  Rate Unit Rate Units Rate table/ratio table |
| **Part I: Rates** * Can be written in a statement
* Can be written in fraction form
* You must include units when writing rates!!

**Examples:** * + 1. 55 miles per hour 🡪
		2. 75 miles in 3 hours 🡪
		3. 112 students for 4 teachers 🡪
 |
| **Part II: Unit rate**How to find a unit rate:1. Write as a rate
2. Divide 🡪 answer becomes the new numerator
3. Denominator becomes 1
4. Write units

100 centimeter in 10 seconds  or 10 cm per second

|  |  |  |
| --- | --- | --- |
| PROBLEM | RATE | UNIT RATE |
| Example 1:75 miles for 3 hours |  |  |
| Example 2:112 students for 4 teachers |  |  |

 |
| **Part III: Rate/Ratio Table**Example 1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 2 | 4 | 6 |  | 14 |  |
| 1 | 3 | 6 |  | 15 |  | 300 |

Example 2: 8 sword fish to 6 tiger fish

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| sword |  | 4 |  |  | 20 | 36 |
| tiger | 1 |  | 6 | 18 |  |  |

Example 3: 4 squares to 16 circles

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| squares |  | 2 | 4 | 6 | 8 | 40 |
| circles | 1 |  |  |  |  |  |

Example 4: 80 students for 4 buses

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| students |  |  |  |  |  |
| buses | 1 | 2 | 3 | 4 | 5 |

Example 5: $20 for 5 bags of cookies

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| $ | 4 | 8 | 12 | 16 | 20 | 100 |
| cookies |  |  |  |  |  |  |

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PRACTICE for ML #1 – Rates and Rate tables (Math 7)

Write each situation as a rate and a unit rate

|  |  |  |
| --- | --- | --- |
|  | Rate | Unit Rate |
| 1. Ben bikes 36 miles in 4 hours
 |  |  |
| 1. Weed killer mixes 11 tablespoons of soap with 2 quarts of water
 |  |  |

1. Ms. Rahe ran a marathon, which is 26.2 miles in 4.2 hours. How many miles did she run in one hour?
2. Ms. Whittier was travelling to Charleston, Virginia on her motorcycle. She drove 260 miles on 5 gallons of gas. How many miles did she drive per gallon?
3. Fill in the rate table.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 3 |  | 6 | 18 |  |  |
| 1 | 4 | 12 |  |  | 32 | 60 |

1. Fill in the rate table if there are 4 books for 8 students

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| books |  | 1 | 2 | 4 |  |  |
| students | 1 |  |  |  | 35 | 112 |