

**Math 20-2**

**Name:** \_\_\_\_\_

**Skill Building: Rates**

1. Solve, rounded to the nearest tenth if necessary:

a)  $\frac{5}{8} = \frac{x}{12}$

b)  $\frac{5}{8} = \frac{12}{x}$

2. Use rates to solve:

a) If it costs \$3.24 for 3 pounds of oranges, what will it cost for 5 pounds of oranges?

b) If it costs \$7.56 for 2.4 kg of green grapes, what will it cost for 1.0 kg of green grapes?

3. Use rates for unit conversion:

\$1.00 Can = \$0.744 US

1.0 US gallons = 3.79 litres

a) A car has a 65 litre gas tank, how many US gallons is this equal to?

b) A truck has a 40 US gallon tank, how many litres is this equal to?

c) If you have \$275 Can, what is that equal to in US dollars?

d) The price of gas in Lacombe is \$0.84 per litre. The price of gas in Whitefish Montana, USA is \$2.89 per gallon.

i. If you buy 95 litres of gas to fill your gas tank in Lacombe what will that cost in Canadian dollars?

ii. If you buy 95 litres of gas in Whitefish Montana, what will it cost in Canadian dollars?

4. Complete at least two of the four puzzles:

## Sudoku

### Two-by-Three With Six Possible Values

		3			
2		4			1
		5			
				6	5
		6	2		4
				1	3



A magic square is a grid of numbers where the values in each of the rows, columns and diagonals adds up to the same sum, known as the “magic number.” Use your math skills to fill in each of these magic squares.

The magic number is 204.

	18		78
		66	48
54			
24		84	6



Each row, column and diagonal add up to the values shown. Can you logically fill in the rest of the grid of numbers?

13	11	22		20	→	85
	8	21	7	4	→	46
2		9	24		→	72
	10	18	5		→	49
16					→	73
↓	↓	↓	↓	↓	↓	
38	64	84	58	81		52



Hidden within this grid are 14 multiplication problems. They may be positioned horizontally (right), vertically (down), or diagonally (up or down to the right). Can you find them all?

6	3	6	18	1	5	5
3	2	7	6	1	5	5
18	1	1	6	7	7	7
6	7	7	1	6	7	2
4	7	3	6	3	4	49
24	2	7	14	2	4	24
6	6	36	4	2	8	12