Name _____ Date _____

Extra Practice **BLM 1.2**

1.2 Operations With Rational Numbers

1. Insert brackets to make each equation true.

a) $\frac{2}{3} + 4 \times \frac{1}{2} + \frac{1}{4} \div 3 = \frac{5}{3}$

b) $0.5^2 - 0.1 \times 8 \div 2 = 0.6$

c) $-2 \times 18.5 - 6.3 \div 4 = -6.1$

2. Evaluate when $a = 3$, $b = 6$, and $c = \frac{1}{2}$.

Use estimation to help simplify your calculations. Show your work.

i) $a \times (b + c)$ _____

ii) $b^2 + a$ _____

iii) $a \times b \times c$ _____

iv) $b \div c \times a$ _____

v) $(b \times c)^3 + a^2$ _____

3. Evaluate when $x = 0.5$, $y = 7.2$, and $z = -1.8$. Use estimation to help simplify your calculations. Show your work.

a) $y^2 - z$ _____

b) $x^2 + y^2 + z^3$ _____

c) $y \div x + z$ _____

d) $x \bullet y \bullet z$ _____

e) $x \bullet (y - z)$ _____

4. Marion and her 5 friends bought 3 pizzas. Each person ate $\frac{3}{8}$ of a pizza. How much pizza is left?

_____

5. During their vacation, the Robichaud family spent $\frac{1}{4}$ of their money on gas, $\frac{3}{5}$ of their money on food and hotels, and $\frac{1}{8}$ of their money on tourist attractions.

a) What fraction of their money did they spend altogether?

_____

b) If they had $1840 before their vacation started, how much money did they spend on gas, food, hotels, and tourist attractions? How much is left over?

_____

6. How many hours are there in $3\frac{1}{4}$ weeks?

_____

7. The temperature in Truro, on average, decreased by 1.3°C/h during a night.

a) How much did the temperature drop from 1:00 A.M. to 6:00 A.M.?

_____

b) If the temperature was 2°C at 1:00 A.M., what is the temperature at 6:00 A.M.?

_____

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8. Which statements are **always true**, **sometimes true**, or **always false**? Give examples to prove your answers.

a) If you subtract a negative rational number from another negative rational number, the result is always less than zero.

_____

_____

b) The sum of two natural numbers is greater than each of the two numbers.

_____

_____

c) When you subtract a rational number from another rational number, you get an integer.

_____

_____

d) The square of a rational number that is not zero is negative.

_____

_____

e) The product of two negative rational numbers is greater than each of the two original numbers.

_____

_____

f) The product of two rational numbers is zero.

_____

_____

g) All rational numbers can be expressed in a decimal form.

_____

_____

h) All numbers in a decimal form are rational numbers.

_____

_____

9. Complete the magic square. The sum of the numbers in a row, in a column, and along the diagonal must be equal.

	168.2		53	103.4
161	31.4	45.8	96.2	110.6
24.2		89		153.8
67.4	81.8		146.6	
	126			