Name AK Period _____ Date _____

PreAlgebra Assessment Review

WEEKEND WORKOUT #1: RATIONAL NUMBERS (15 pts)

___ / 15

Part I - Multiple Choice (1 point each)

Show all work where necessary. Place final answers in the answer box.

(1) From 12:00 midnight to 6:00 a.m., the temperature decreased by 12° C. If the original temperature was 12° C, which expression can be used to represent this situation?

Original → 12, decrease by 12 → −12

(A) 12 − 12

B. 12 + 12

C. 12 − (-12)

D. -12 + (-12)

A

(2) What value will make the equation true?

$$-2.1 - \underline{\ ?\ } = -1\tfrac{1}{2}$$

$-2.1 - (-1\frac{1}{2})$

$-2.1 + 1.5$

-0.6

A. 3.6

B. 0.6

(C) -0.6

D. -3.6

C

(3) Which expression can go in the blank to make the equation true?

$$-4.5 + 4.4 + \underline{\ ?\ } = 0$$

$-4.5 + 4.4 = -0.1$

$-0.1 + \_\_ = 0$, $\_\_ = 0.1$

(A) -6.7 + 6.8 = 0.1

B. -6.7 + (-6.6) = -13.3

C. 7.2 + (-7.2) = 0

D. 7.2 + (-7.3) = -0.1

A

(4) What is the value of $\frac{3}{7} \times 0.1 \div \frac{5}{21}$?

calculator

or

$\frac{3}{7} \cdot \frac{1}{10} \cdot \frac{21}{5}$ (21 → 3)

$\frac{9}{50}$

A. $\frac{1}{98}$

(B) $\frac{9}{50}$

C. $\frac{9}{5}$

D. $\frac{18}{1}$

B

(5) Which situation results in a final value of zero?

A. the overall change in temperature when the temperature goes from -10°F to 10°F $10 - (-10) = 20$

(B) the total profit made when a person buys an item for $2.25 and then sells the item for $2.25 $2.25 - 2.25 = 0$

C. the overall change in altitude of a hot air balloon after rising 21 kilometers from sea level $0 + 21 =$

D. the total distance a person travels when he bikes 3.1 miles to school and then bikes 3.1 miles back home $3.1 + 3.1 = 6.2$

B

Part II – Constructed Response (2 points each)

Show all work! A correct answer without appropriate work will receive NO credit. Place final answers in the answer box.

(6) Using long division, find the exact decimal equivalent of $\frac{7}{12}$.

$$
\begin{array}{r}
0.58\overline{3} \\
12\overline{)\,7.000} \\
-60 \\
\hline
100 \\
-96 \\
\hline
40 \\
-36 \\
\hline
4
\end{array}
$$

Answer: $0.58\overline{3}$

(7) Find the value of the expression. (SHOW ALL STEPS!)

$$\frac{5}{(-1.5+9.5)} + \frac{0.4(7+11)}{-0.2}$$

$$\frac{5}{8} + \frac{0.4(18)}{-0.2}$$

$$\frac{5}{8} + \frac{7.2}{-0.2}$$

$$0.625 + (-36)$$

$$-35.375$$

Answer: -35.375 or $-35\frac{3}{8}$

(8) Jen's goal is to run a total of 22 miles in five days. The table shows her log for the number of miles she ran on Monday, Tuesday, Wednesday, and Thursday.

JEN'S RUNNING LOG

Day	Distance (miles)
Monday	$4\frac{3}{4}$
Tuesday	$5\frac{1}{8}$
Wednesday	0
Thursday	$6\frac{1}{4}$
Friday	?

How many miles must Jen run on Friday to reach her goal?

Mon – Thurs:

$4\frac{3}{4} + 5\frac{1}{8} + 0 + 6\frac{1}{4}$

$4\frac{6}{8} + 5\frac{1}{8} + 6\frac{2}{8} = 15\frac{9}{8} \rightarrow 16\frac{1}{8}$

Total 22 miles

Mon-Th $-16\frac{1}{8}$ miles

Fri. $5\frac{7}{8}$ miles

Answer: $5\frac{7}{8}$ miles

(9) Three classes in a middle school raised money to buy new computers.

- Ms. Miller's class raised $249.00.
- Ms. Allen's class raised $396.62 more than Ms. Miller's class.
- Mr. Baker's class raised $430.43 less than Ms. Allen's class.

What is the total amount of money raised by all three classes?

Ms. Allen	Mr. Baker
249.00	645.62
+ 396.62	− 430.43
645.62	215.19

Ms. Miller	249.00
Ms. Allen	645.62
Mr. Baker +	215.19
Total	1109.81

Answer: $1,109.81

(10) A candy store sells caramels and milk chocolate by the pound. The table below shows the total cost, in dollars, for a pound of each type of candy the store sells.

CANDY PRICES

Type of Candy	Price per Pound (dollars)
Caramels	$9.28
Milk chocolate	$12.80

How much more is the cost for $1\frac{3}{4}$ pounds of milk chocolate than the cost for $1\frac{3}{4}$ pounds of caramels?

Milk Chocolate

$1\frac{3}{4}$ lb x $12.80

$22.40

Caramels

$1\frac{3}{4}$ lb x $9.28

$16.24

$$\begin{array}{r} 22.40 \\ -\ 16.24 \\ \hline 6.16 \end{array}$$

$6.16 more