Module 1

1. Determine if the below table represents a proportional relationship. Why or why not?

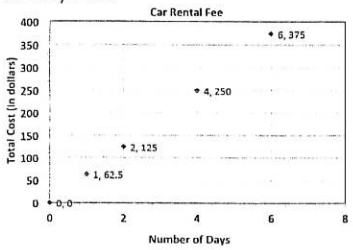
x Candy Bars Sold	y Money Received ($)
2	3
4	5
8	9
12	12

3/2
5/4
9/8
12/12

No, K is not proportional

K = y/x

2. Determine if the below graph represents a proportional relationship. Why or why not?



Yes - straight line through origin

b. What is the unit rate? What does it represent?

$62.50/day

3. A punch is mixed in a ratio of ginger ale to juice of 2 to 5.

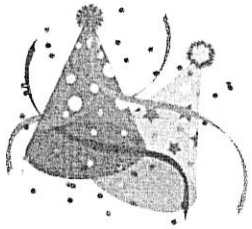
a. Complete the table to show different amounts that are proportional.

Amount of ginger ale	2	4	6
Amount of juice	5	10	15

5/2 10/4 = 5/2 15/6 = 5/2

Why are these quantities proportional?

They have the same value of K



Mrs. Wood 's

New Year's Math Booklet!

It's a new year, but I can't forget last year's math skills!

HAPPY NEW YEAR!

Module 2

1. Solve.

$3\frac{1}{5} - \left(-1\frac{9}{10}\right)$

$\frac{16}{5} + \frac{19}{10} = \frac{32}{10} + \frac{19}{10} = \frac{51}{10} = \boxed{5\frac{1}{10}}$

2. At 5 a.m. the temperature was -14°F. In the afternoon, the temperature was 9°F. What was the change in temperature during the day?

p.14

Final - initial = 9 - (-14) = $\boxed{23°}$

3. Lydia currently has a balance of -$15.17 in her checking account. Her bank requires her to maintain a minimum balance of $20. How much does Lydia need to deposit into her checking account to reach the minimum balance?

20 - (-15.17) = $\boxed{\$35.17}$

4. A type of bead weighs about 3/16 ounce. If a group of these beads weigh 4 1/8 ounces, how many beads are in the group?

$4\frac{1}{8} \div \frac{3}{16} = \frac{\cancel{33}^{11}}{\cancel{8}_{1}} * \frac{\cancel{16}^{2}}{\cancel{3}_{1}} = \boxed{22 \text{ beads}}$

Module 3

1. Find the perimeter of a triangle with sides with the following lengths: 3a - 2c, 7c - 4 and 5a + 8. Express in standard form.

8a + 5c + 4

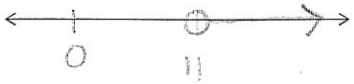
2. Solve the inequality. Graph the solution.

-4x + 11 < -33

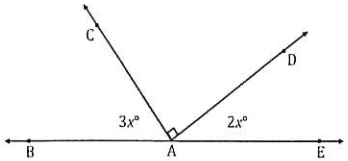
-11 -11

$\frac{-4x}{-4} < \frac{-44}{-4}$

x > 11



3. Find x.

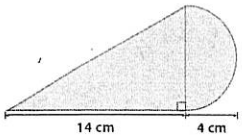


3x + 2x = 90

5x = 90

$\boxed{x = 18}$

4. Find the area of the figure. Use 3.14 for π.



$A = \frac{1}{2}bh + \frac{1}{2}\pi r^2$

$= \frac{1}{2}(14)(8) + \frac{1}{2}(3.14)(4^2)$

$= \boxed{81.12 \text{ cm}^2}$