Name_____ MTH 2620, Lesson 2, Extra Practice

Directions: Use the given figure to represent the quantities. In each diagram you draw, make sure that the BMU (or, what counts as "1") is clearly labeled.

1. Suppose the length of the segment below represents the BMU.

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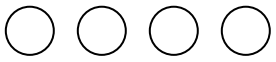
a.) What type of model is this?

b.) Show 2½.

c.) Show ¼.

2. Suppose the number of marbles below represents the BMU.

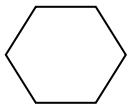


a.) What type of model is this?

b.) Show 2½.

c.) Show ¼.

3. Suppose the area of the figure below represents the BMU.



a.) What type of model is this?

b.) Show 2½.

c.) In your drawing for 2½, are your hexagons touching or not? Does it matter?

d.) Show ¼.

4. Represent each rational number below using an area, linear, and discrete model. Make sure to label in each diagram what you are using to represent the BMU (or, "1").

a. $\frac{4}{5}$

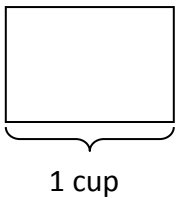
Area Linear Discrete

b. $\frac{5}{3}$

Area Linear Discrete

Improper and Mixed Fractions Using Other Models

1. a) Your mom is going to bake a cake for your birthday. The recipe calls for $2\frac{3}{4}$ cups of flour. Draw a picture for $2\frac{3}{4}$ cups of flour if the rectangle below represents 1 cup.



b) Complete the following: $2\frac{3}{4} = \underbrace{\frac{}{4} + \frac{}{4}}_{1 \quad 1} + \frac{}{4}$

c) Rewrite $2\frac{3}{4}$ as an improper fraction. $2\frac{3}{4} =$ ——

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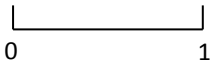
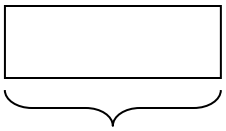
2. a) Julie was getting ready for a charity run. She walked $5\frac{7}{8}$ kilometers during her practice run. Draw a picture for $5\frac{7}{8}$ kilometers if the line segment below represents 1 kilometer.



b) Complete the following: $5\frac{7}{8} = \underbrace{\frac{}{8} + \frac{}{8} + \frac{}{8} + \frac{}{8} + \frac{}{8}}_{1 \quad 1 \quad 1 \quad 1 \quad 1} + \frac{}{8}$

c) Rewrite $5\frac{7}{8}$ as an improper fraction. $5\frac{7}{8} =$ ——

3. a) To make a quilt, Marley needed $\frac{34}{5}$ yards of fabric. Draw a picture for $\frac{34}{5}$ yards if the rectangle below represents 1 yard.



1 yard

b) Complete the following:

$$\frac{34}{5} = \underline{\quad} + \frac{\quad}{5}$$

c) Rewrite $\frac{34}{5}$ as a mixed fraction. $\frac{34}{5} =$

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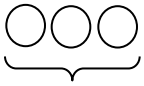
4. a) At the last barbeque, Marlin cooked $\frac{17}{3}$ pounds of ground beef (every hamburger was 1/3 of a pound). Draw a picture of $\frac{17}{3}$ if the three circles below represent 1 pound of meat.



1 pound

b) Looking at your picture above, what is the mixed fraction equivalent to $\frac{17}{3}$?