

LAB 7 Extra Credit

Your Name: _____

Class Section: 1 2 3

Modeling Fraction Addition with Pattern Blocks

- Use the extended Pattern Block set (regular pattern blocks along with chevrons and double hexagons) to complete this worksheet.

1. If the hexagon is 1 then the triangle is _____ ,

the rhombus is _____ or _____ and the trapezoid is _____.

2. (If the hexagon is 1)

What is the value of the triangle and the rhombus combined? _____

What shape is this? _____

What fraction addition problem does this model? _____ + _____ = _____

Draw a picture of this and label it with the fraction addition sentence (I)

3. If the chevron is 1 then the triangle is _____ ,

the rhombus is _____ or _____ and the trapezoid is _____.

4. (If the chevron is 1)

What is the value of the triangle and the rhombus combined? _____

What fraction addition problem does this model? _____ + _____ = _____

Draw a picture of this and label it with the fraction addition sentence (I)

5. Suppose that a particular unit **SET**, is defined to contain
- | | |
|-------------|--------------|
| 4 triangles | 6 rhombi |
| 2 diamonds | 3 squares |
| 6 hexagons | 7 trapezoids |

- a. How many elements are in the set? _____
- b. What subset of shapes best models $\frac{1}{4}$ of the set? _____
- c. What subset of shapes best models $\frac{1}{7}$ of the set? _____
- d. What subset of shapes best models $\frac{1}{14}$ of the set? _____
- e. What subset of shapes best models $\frac{3}{14}$ of the set? _____
- f. Ask a question, using full sentences that uses this set to model $\frac{1}{4} + \frac{1}{7}$:

- g. Ask a question, using full sentences that uses this set to model $\frac{1}{7} + \frac{3}{14}$:

- h. What other fractions can you easily model with this set?

6. Define a unit set so that you can model, with pattern blocks, the fraction addition problem: $\frac{1}{8} + \frac{1}{4}$. Describe (draw and label) your unit set and model the problem.