Name: _____ Date: _____

Chapter 6 Gifted and Enrichment

1. Design a set of pattern blocks that can be used with the fractions $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{6}$.

For what other fraction could this set of pattern blocks be used?

2. Use circles divided into parts to show how you could represent the statement $\frac{2}{9} + \frac{5}{9} + \frac{8}{9}$, and determine the solution. Express your solution in lowest terms.

3. There is a tiled wall that is 2.4 m wide and 2.5 m tall. The tiles are rectangular in shape with all the tiles having a width of 20 cm and a height of 25 cm. There are 60 grey tiles, 36 blue tiles, and the rest of the tiles are patterned. What fraction of the tiles are grey? blue? patterned?

4. A number that remains the same when it is written backwards is called a palindrome. An example is 1221.

a) Are all four-digit palindromes divisible by 11? Explain with examples.

b) Are all five-digit palindromes divisible by 11? Explain with examples.

5. A candy store sells candy by weight. You have a bag of candy that contains 30 jelly beans each weighing 4 g. Your bag also contains 25 wiggle worms each weighing 6 g, and 50 fizzle rockets each weighing 3 g. There are also 630 g of other candies in your bag. What fraction of the candies does each known type of candy make up? What fraction of the total amount of candies are known types of candies?