Name: _____ Date: _____

Chapter 6 Gifted and Enrichment

1. Show why dividing a whole number by a fraction is equivalent to multiplying the whole number by the reciprocal of the fraction.

2. a) One-fifth of the result of ten-twelfths of an original amount is the same as multiplying the original amount by _____? Show your work.

b) Make a similar statement to the one in part a) using different fractions.

3. A school mosaic is being created with 1140 tiles, one tile to represent each student registered as of January 1. The tiles reflect the cultural backgrounds of the students and $\frac{1}{4}$ reflect Asian cultures, $\frac{2}{5}$ reflect First Nations cultures, $\frac{1}{3}$ reflect European cultures, and the remaining tiles reflect other cultures. Of the tiles reflecting Asian cultures, $\frac{5}{6}$ reflect Chinese.

a) How many tiles reflect Asian cultures? First Nations cultures? European cultures?

b) What is the mean of the fractions that reflect Asian, First Nations, and European cultures?

c) What fraction reflects other cultures? Chinese culture? other Asian cultures?

d) Which fractions add to 1? Why do they add to 1?

4. A ball bounces $\frac{2}{3}$ of its height after every bounce. After its third bounce, the ball reaches a height of $17\frac{7}{9}$ cm. From what height was the ball originally released?

5. The first five terms of a pattern are $1, \frac{3}{5}, \frac{5}{3}, \frac{9}{25}, 4\frac{17}{27}$. Describe the pattern and find the 6th and 7th terms.