Name: _____ Date: _____

BLM 2–4

Chapter 2 Problems of the Week

1. What are some fractions that are useful for telling time from a clock with hands? Make a table that shows at least five fractions and their minute form.

2. In the past, calculators could not find square roots. Teachers would give questions that involved triangles with side lengths of:

- 3, 4, and 5
- 1, 2, and $\sqrt{3}$
- 1, 1, and $\sqrt{2}$

Why are these triangles special in terms of square roots? Explain why teachers would use them.

3. A gold bar has a mass of $1\frac{1}{3}$ kg.

You wish to cut off exactly $\frac{1}{2}$ kg.

What fraction of the bar should you cut off? **Hint:** What ratio expresses the relationship?

4. A chessboard is square and made up of 64 squares. Consider only the first three rows of the chessboard.

a) Find the diagonals of all squares and rectangles possible in the first three rows. Arrange the squares and rectangles, from least to greatest, by length of their diagonals.

b) Consider the entire chessboard. When would you expect the squares or rectangles to give whole number diagonals?

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