

# EISENHOWER PROFESSIONAL DEVELOPMENT PROGRAM

## Mathematics Within: Algebraic Patterns

### Lesson Plan

**Participant Name:** Rebecca Giles

**Broad Topic:** Fractions, Ratios and Proportions    **Subtopic:** Money, Money, Money

**Aim:**

*Students will learn how to set up and use proportions to answer everyday problems.*

**Specific Objective(s):**

- o Students will be able to use proportions to compare amounts.
- o Students will be able to use proportions to calculate foreign exchange rates.
- o Students will be able to solve for the unknown in an algebraic equation.

**Materials/Supplies:**

- o Calculator – 1 per student
- o Pencils
- o Paper
- o Overhead projector
- o Overheads
- o Chalk
- o Overhead markers

**Lesson:**

- o One class period, but can be extended over multiple classes.
- o Connect to equivalent fractions, ratios used in recipes and compound fractions.
- o Use problems from “If... then... proportions.”
- o Use foreign exchange listings for discussion and comparison.
- o Assessment – teacher walk about and student feedback.
- o Closure – ask extension question, student self-analysis.
- o Extension – Using the foreign exchange rates from the Minneapolis *Star Tribune* from four days in July, note the changes in rates in currency of a specific country. Choose a country that would give you the best rate of exchange if you were to take a vacation there. Explain your choice.
- o Extension – What effects have occurred with the change to the Euro? (Use the example of Italian and French and Spanish currency vs. the Euro.)
- o Extension – What impact does a disaster or scandal have on stock markets? Why do we care what happens in the Japanese or German or English markets?
- o Extension – How does the current exchange rate with Canada affect US and Canadian communities?

**Text or Website references:**

- o Minneapolis *Star Tribune*
- o Ration, proportion and percent, Instructional Fair, TS Denison