

**FlyBy Math™ Alignment**  
**2003 Mathematics Standard Course of Study and**  
**Grade Level Competencies**

**Strand: Number and Operations**

**COMPETENCY GOAL 1: The learner will perform operations with numbers and expressions to solve problems.**

**Objectives**

1.02 Use formulas and algebraic expressions, including iterative and recursive forms, to model and solve problems.

**FlyBy Math™ Activities**

--Use the distance-rate-time formula to predict and analyze aircraft conflicts.

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

**Strand: Data Analysis and Probability**

**COMPETENCY GOAL 3: The learner will collect, organize, and interpret data with matrices and linear models to solve problems.**

**Objectives**

3.03 Create linear models for sets of data to solve problems.

- a) Interpret constants and coefficients in the context of the data.
- b) Check the model for goodness-of-fit and use the model, where appropriate, to draw conclusions or make predictions.

**FlyBy Math™ Activities**

--Interpret the slope of a line in the context of a distance-rate-time problem.

--Predict outcomes and explain results of mathematical models and experiments.

**Strand: Algebra**

**COMPETENCY GOAL 4: The learner will use relations and functions to solve problems.**

**Objectives**

4.03 Use systems of linear equations or inequalities in two variables to model and solve problems. Solve using tables, graphs, and algebraic properties; justify results.

**FlyBy Math™ Activities**

--Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.

--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.