Linear Equations, Exploration

Grade Level: 7, Pre-Algebra

I. Objectives  Students will:
   a. create linear equations from sentences or verbal direction ie. Multiply x by 2, divide by 3
   b. fill in T-chart
   c. plot points on graph and draw line

II. Materials
    a. Graph paper
    b. Overhead
    c. Graphing Calculator

III. Procedures
    a. Intro/motivation- Part b exploration
    b. Exploration Students will discuss how many points it takes for a line, quadrants, formula for a line, what a T-chart is
    c. Cooperative involvement- Students will work with teacher on examples then in groups to figure problems on worksheet.
    d. Closure- Review of inclass worksheet

IV. Standards
A.5.7.1
Solve and graph one-step linear equations and inequalities using a variety of methods (i.e., hands-on, inverse operations, symbolic) with real world application with and without technology

A.5.7.2
Solve simple linear equations using integers and graph on a coordinate plane Ex. use a T-chart

A.5.7.3
Translate phrases and sentences into algebraic expressions and equations including parentheses and positive and rational numbers and simplify algebraic expressions by combining like terms

A.5.7.4
Write and evaluate algebraic expressions using positive rational numbers
A.6.7.1
Use tables and graphs to represent linear equations by plotting, with and without appropriate technology, points in a coordinate plane

A.6.7.2
Represent, with and without appropriate technology, linear equations by plotting and graphing points in the coordinate plane using all four quadrants given data in a table from a real world situation,

A.6.7.3
Create and complete a function table (input/output) using a given rule with two operations in real world situations

V. Evaluation
a. Students will complete in class worksheet and will review in class.