Comparison Problems & Tables

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Summary	This class will be used to review concepts and representations as applied to the solution of verbal comparison problems and to work on function tables.
Goals	1. Further work with addition (and subtraction) as functions, not simply operations on particular numbers. 2. Introduction to multiplication as functions.
Materials	Overheads, Handouts
Keywords	Contextualized Situations Full Class Discussion Interpretation of Stories Production of Algebraic Expressions Production of Tables Representing Variables Small Group Work

Activity Plan:

Reasoning about Relative Heights

1. The Problems [Whole Class]

    Present the first handout (Page 1) and display the corresponding overhead (also Page 1) to whole class.

    Work with the children to represent and solve the first problem.

    Make sure to represent the problem both as line segments and as number sentences.

2. Representing and Solving the Problems [Group Work/Whole Class]

    Ask children to diagram each problem on Page 1, to represent each one as a number sentence, and to solve them.

    Choose one or two solutions to discuss.

    Ask the children to present, discuss, and explain their answers to the whole class.

3. Table of Possible Values [Whole Class/Group Work]

    Distribute the handout on Page 2 and ask the children to complete the tables and to determine, for each table, what rule is used to produce the outputs from the inputs.

4. Homework (Page 3)

    The homework focuses on comparison problems and is similar to the first part of this class.

Overhead and Handout: Heights Problem (Page 1)

Name: _____ Date: _____

Maria is 3 inches shorter than Tim. Maria is 35 inches tall.
How tall is Tim?
Diagram:

Number sentence: _____

Maria is 5 inches taller than Jack. Maria is 35 inches tall. How tall is Jack?
Diagram:

Number sentence: _____

Nancy is 4 inches shorter than Kevin. We don't know Nancy's height.
How can you represent Kevin's height?
Diagram:

Number sentence: _____

Nancy is 6 inches taller than Bob. We don't know Nancy's height.
How can you represent Bob's height?
Diagram:

Number sentence: _____

Overhead and Handout: Function Tables (Page 2)

Name: _____ Date: _____

Complete the tables:

Column A	Column B
3	5
6	8
10	12
12	
R	

What rule did you use to get the numbers in column B from the numbers in column A?

_____

Column A	Column B
3	9
6	18
10	30
12	
S	

What rule did you use to get the numbers in column B from the numbers in column A?

_____

Overhead and Homework **(Page 3)**

Name: _____ Date: _____

Tony has 4 candies. He has 3 candies less than John. How many candies does John have?
Diagram:

Number sentence: _____

Maria is 5 inches taller than Jack. Maria is 35 inches tall. How tall is Jack?
Diagram:

Number sentence: _____

John has 3 dollars less than Mary. We don't know how much money John has. How can you represent Mary's amount of money?
Diagram:

Number sentence: _____

Nancy has 6 dollars more than Bob. We don't know how much money Nancy has. How can you represent Bob's amount of money?
Diagram:

Number sentence: _____