

UPPER CUMBERLAND MIDDLE SCHOOL MATH PARTNERSHIP

SESSION # 11 OUTLINE

TITLE: Slope in contextual problems

INSTRUCTOR: Sheryl Webb

STANDARDS:

GRADE LEVEL EXPECTATIONS:

GLE 0706.3.6 Conceptualize the meanings of slope using various interpretations, representations, and contexts.

GLE 0806.3.5 Use slope to analyze situations and solve problems.

CHECKS FOR UNDERSTANDING:

- ✓ 0706.1.6 Develop meaning of intercept and rate of change in contextual problems.
- ✓ 0806.3.13 Represent situations and solve real-world problems using symbolic algebra.

SPI's:

SPI 0706.3.4 Interpret the slope of a line as a unit rate given the graph of a proportional relationship.

SPI 0806.1.2 Interpret a qualitative graph representing a contextual situation.

ACTIVITIES: Participants will use Excel to create tables and graphs for Walking Rates and Pledge Plan Activities. They will then complete the BLMs for the two activities.

INSTRUCTIONAL STRATEGIES MODELED:

The instructor will guide the participants through creating the Excel workbooks. The instructor will then ask questions to guide the participants to discover the relationship between the slopes and the context of the problems.

TECHNOLOGY/MATERIALS USED:

TI-84 graphing calculator/SmartView, laptop, internet, projector, Navigating through Algebra in Grades 6-8, Excel

WEBSITES:

HANDOUTS ATTACHED:

BLM Walking Rates, Pledge Plans