Geometric Measurement: Challenges
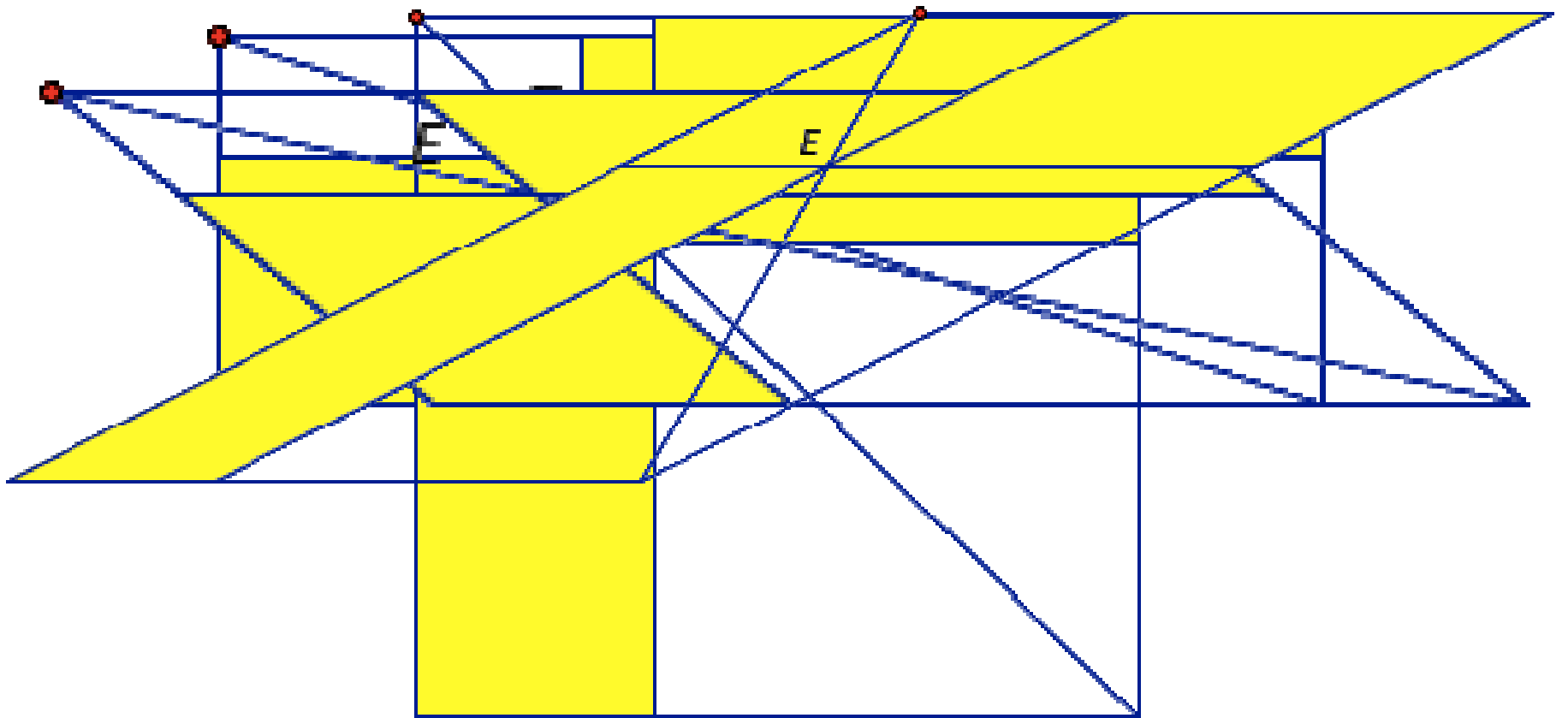
Jackie Sack

Rice University School Mathematics Project

Spring Networking Conference

January 31, 2009

What is the relationship of the two shaded rectangles when E moves along a diagonal?

Geometric Measurement

- Challenges
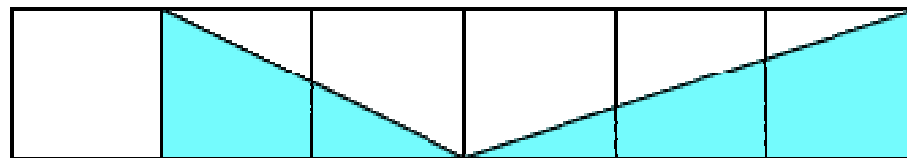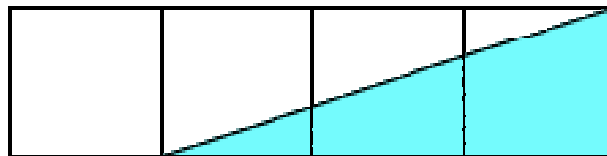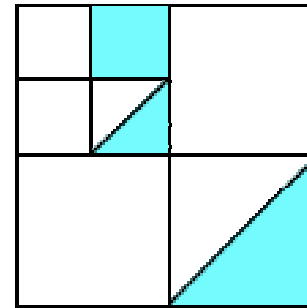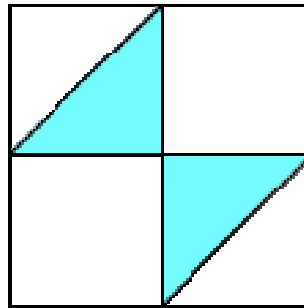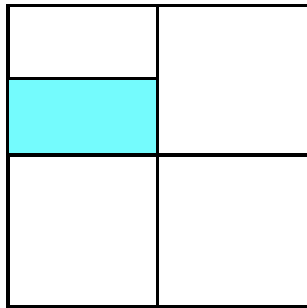- How do you conceive area or volume?

Research tells us …

- Covering/filling versus subdividing
- Identifying spatial components
- Combining spatial components into spatial composites (no gaps or overlaps)
- Establishing interrelationships between and among components and composites
- The power of predicting

Multiple Representations

- The importance of visualization
- 2-D and 3-D models
- Pictures
- Verbal descriptions
- Abstract representations

Write a fraction to show what part of each figure is shaded. Describe how you know in words or pictures.

Jackie Sack

Associate Director for Curriculum Development

Rice University School Mathematics Project

(713) 348-6076

jsack@rice.edu