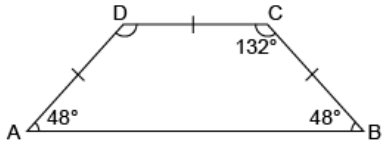
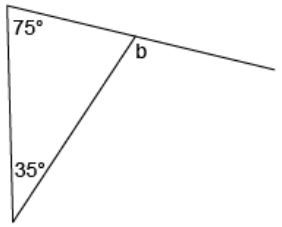
Geometry

Activity 2 Assessment

Angle Properties and Relationships

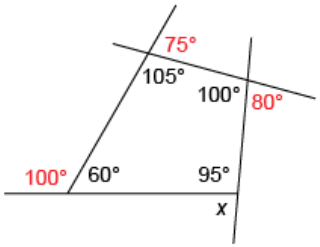
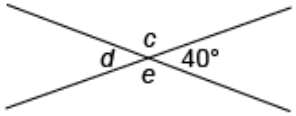
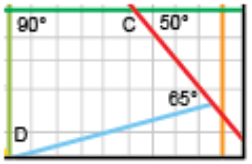
Angle Properties and Relationships		
Understands that smaller angles can be added together to determine a larger angle.  "The tan parallelogram angle is 30°, and 30° + 30° = 60°, which is the measure of the smaller angle in the red trapezoid."	Understands and uses the properties of interior angles to solve for unknown angle measures.  "I know the sum of the interior angles of a quadrilateral is 360°. I add the known angle measures: 48° + 48° + 132° = 228°, then subtract: 360° − 228° = 132°, which is the measure of angle D."	Understands and uses the properties of supplementary and complementary angles to solve for unknown angle measures.  "I know that the interior angles of a triangle add to 180°, so the supplementary angle to *b* is 180° − 75° − 35° = 70°. Pairs of supplementary angles have a sum of 180°, so *b* is 180° − 70° = 110°."
Observations/Documentation		

Geometry

Activity 2 Assessment

Angle Properties and Relationships

Angle Properties and Relationships (cont'd)

Understands and uses the properties of exterior angles to solve for unknown angle measures.	Understands and uses properties of opposite angles to solve for unknown angle measures.	Flexibly applies the properties of various angles to solve for unknown measures.
		
"The sum of exterior angles is 360°: 75° + 80° + 100° = 255° and 360° − 255° = 85°, which is measure of the unknown angle."	"I know that pairs of supplementary angles have a sum of 180° and opposite angles are equal. So, *d* is 40° because it's opposite the 40° angle. To determine the angle measure of opposite angles *c* and *e*, I subtract: 180° − 40° = 140°, which is the measure of angles *c* and *e*."	"I used supplementary angles, ∠C = 180° − 50° = 130°. Then, I used the sum of the angles in a quadrilateral, ∠D = 360° − 90° − 130° − 65° = 75°. The unknown angle measure is 75°."

Observations/Documentation