

LESSON **6-6** **Technology Lab Recording Sheet** p. 426
Explore Isosceles Trapezoids

Try This

Activity 1

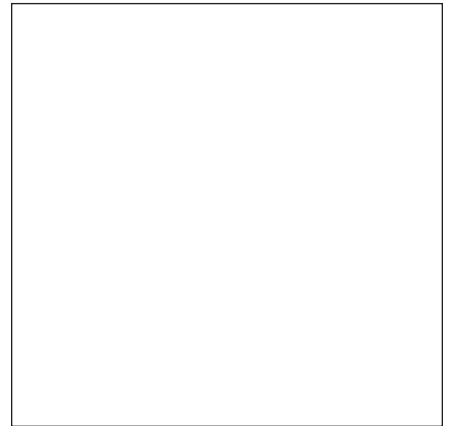
1. Draw \overline{AB} and a point C not on \overline{AB} . Construct a line parallel to line ℓ through C .
2. Draw point D on line ℓ . Construct \overline{AC} and \overline{BD} .
3. Measure AC , BD , $\angle CAB$, $\angle ABD$, $\angle ACD$, $\angle CDB$.
4. Move D until $AC = BD$.

What do you notice about $m\angle CAB$ and $m\angle ABD$?

What do you notice about $m\angle ACD$ and $m\angle CDB$?

5. Move D so that $AC \neq BD$. Now move D so that $m\angle CAB = m\angle ABD$.

What do you notice about AC and BD ?



Try This

1. **Make a Conjecture.** What is true about the base angles of an isosceles trapezoid? Write your conjecture as a conditional statement.

2. **Make a Conjecture.** How can the base angles of a trapezoid be used to determine if the trapezoid is isosceles? Write your conjecture as a conditional statement.

LESSON **Technology Lab Recording Sheet**

6-6 **Explore Isosceles Trapezoids** continued

Activity 2

1. Construct \overline{AD} and \overline{CB} .
2. Measure AD and CB .
3. Move D until $AC = BD$.

What do you notice about AD and CB ?

4. Move D so that $AC \neq BD$. Now move D so that $AD = BC$.

What do you notice about AC and BD ?

Try This

3. **Make a Conjecture.** What is true about the diagonals of an isosceles trapezoid?

Write your conjecture as a conditional statement.

4. **Make a Conjecture.** How can the diagonals of a trapezoid be used to determine if the trapezoid is isosceles? Write your conjecture as a conditional statement.
