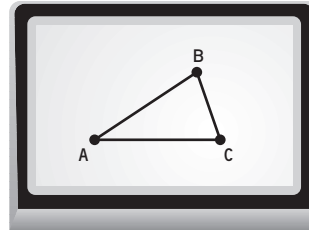# *Technology Activity*

For use with pages 34–42

GOAL **To learn the basics of geometry software**

In this activity, the basics of geometry are explored. Geometry software can be used to construct and measure geometric figures and to calculate and tabulate data.

Activity

❶ Open a geometry file.

❷ Construct a triangle.

❸ In the triangle, measure the length of the three sides and measure the three angles.

❹ Calculate the sum of the angles of the triangle.

Exercises

1. What is the sum of the angles in a triangle?

2. If the measures of two angles in a triangle are 45° and 75°, what is the measure of the third angle?

NAME _____ DATE _____

Technology Activity Keystrokes

For use with pages 34–42

TI-82

1. Open a geometry file `APPS` 8 3 Cursor to Variable and enter a name of
8 characters or less.

`ENTER` `ENTER`

2. Construct sides *AB*, *BC*, *AC* to form triangle *ABC*

`F2` 5 (Place cursor at location for point *A*) `ENTER` *A* (Move cursor to location
for point *B*) `ENTER` *B* `ENTER` (Move cursor to location for point *C*) `ENTER` *C*
`ENTER` (Move cursor to point *A*) `ENTER`

3. Measure the lengths of the sides of triangle *ABC*

`F6` 1 (Move cursor to side *AB*) `ENTER` (Move cursor to side *BC*) `ENTER`
(Move cursor to side *AC*) `ENTER`

Measure the angles of triangle *ABC*

`F6` 3 (Move cursor to point *C*) `ENTER` (Move cursor to point *A*) `ENTER`
(Move cursor to point *B*) `ENTER` (Note: this is the measure of angle *CAB*)
(Move cursor to point *B*) `ENTER` (Move cursor to point *C*) `ENTER`
(Move cursor to point *A*) `ENTER` (Note: this is the measure of angle *BCA*)
(Move cursor to point *A*) `ENTER` (Move cursor to point *B*) `ENTER`
(Move cursor to point *C*) `ENTER` (Note: this is the measure of angle *ABC*)

4. Calculate the sum of the angle measures

`F6` 6 (Press the cursor key until an angle measure is highlighted) `ENTER` `+`
(Press the cursor key until a different angle measure is highlighted) `ENTER` `+`
(Press the cursor key until the last angle measure is highlighted) `ENTER`

Geometry
Chapter 1 Resource Book

NAME _____ DATE _____

Technology Activity Keystrokes

For use with pages 34–42

SKETCHPAD

1. Open Sketchpad.

2. Construct sides *AB*, *BC*, and *AC* to form triangle *ABC*
Choose the segment straightedge tool, then draw each side to form triangle *ABC*.

3. Measure the length of the sides of triangle *ABC*
Choose the translate selection arrow tool and select side *AB*. Then hold down the shift key and select sides *BC* and *AC*. Choose **Length** from the **Measure** menu.

Measure the angles of triangle *ABC*
To measure angle *ABC*, select point *A*, hold down the shift key and select points *B* and *C* (in that order) and choose **Angle** from the **Measure** menu. To measure angle *CAB*, select point *C*, hold down the shift key and select points *A* and *B* (in that order), and choose **Angle** from the **Measure** menu. To measure angle *BCA*, select point *B*, hold down the shift key and select points *C* and *A* (in that order), and choose **Angle** from the **Measure** menu.

4. To calculate the sum of the angles of triangle *ABC*, choose **Calculate** from the **Measure** menu. Then click on the measure of angle *ABC*, $\boxed{+}$, click on the measure of angle *CAB*, $\boxed{+}$, click on the measure of angle *BCA*, and click OK.