

Technology Activity

(Use with Lesson 3-4)

The Last Angle

The graphing calculator program below finds the measure of the third angle of a triangle given the measures of the first two angles.

```
PROGRAM:ANGLE
:Input "FIRST ANGLE: ",F
:Input "SECOND ANGLE: ",S
:180-(F+S)→T
:Disp "THIRD ANGLE: "
:If T≤0
:Then
:Disp "NONE"
:Else
:Disp T
:Stop
```

Use the program to find the measure of the third angle if the measures of two angles of a triangle are given.

1. $16^\circ, 72^\circ$ **92°** 2. $37^\circ, 90^\circ$ **53°** 3. $89^\circ, 66^\circ$ **25°**

4. Modify the program so that you can use it to find the complement of an angle.

Delete third line. Change fourth line to $90 - F \rightarrow T$. Change fifth line to Disp "COMPLEMENT: ". Change sixth line to If $T > 90$.

5. Modify the program so that you can use it to find the supplement of an angle.

Delete third line. Change fourth line to $180 - F \rightarrow T$. Change fifth line to Disp "SUPPLEMENT: ". Change sixth line to If $T > 180$.

6. Modify the program so that you can use it to find the fourth angle measure of a quadrilateral if the measures of the other three angles are given.

Add a line below :Input "SECOND ANGLE: ",S that reads :Input "THIRD ANGLE: ",T. Change current fourth line to $:360 - (F + S + T) \rightarrow X$. Then change current fifth line to :Disp "FOURTH ANGLE: " and sixth line to :If $X \leq 0$. Change next to last line to :Disp X.