**Supplementary Activities**

**Unit 5 Investigation 6**

**Inscribed Angles**

1. Open the file: <http://tube.geogebra.org/material/simple/id/3167383>

Interact with the applet. Move the points on the circle to different locations and reset the slider each time.

State the theorem that is demonstrated here.

2. Open the file: <http://tube.geogebra.org/material/simple/id/3180813>

Interact with the applet. Move the points on the circle to different locations and reset the slider each time.

State the theorem that is demonstrated here.

**Angles Formed by Secants and Tangents**

Open the file: <http://tube.geogebra.org/material/simple/id/3200009>

Interact with the applet. Observe the relationship between the blue angle, formed by two secants and the pink and green central angles.

1. What do you observe?

Click on the reset button. Now move one of the pink points so that one of the secants becomes a tangent.

1. Does your observation from question 1 still hold?

Click on the reset button again. Move the other pink point so that you now have two tangents.

1. Does your observation from questions 1 and 2 still hold?

Open the file: <http://tube.geogebra.org/material/simple/id/3200827>.

Interact with this applet to give you more insight into what you have already observed.

1. Write one or more conjectures based upon what you have observed.
2. Prove one or more of your conjectures. (Hint: drawing an auxiliary line as shown in the figure below may help.)

