**Supplementary Activity**

**Unit 2 Investigation 3**

**Properties of Isosceles Triangles**

Open the file: <http://tube.geogebra.org/material/simple/id/1830585>

**Definition:** An **isosceles triangle** is a triangle that has **at least 1 pair of congruent sides**.

1. Click on the red checkbox to illustrate this definition.

2. Move any 1 (or more) of the vertices of this triangle around. Does it remain isosceles?

3. Click on checkbox 2. Move the vertices of the triangle around again. What do you notice?

4. Click on checkbox 3. This will draw the line that bisects the vertex angle of the isosceles triangle.

5. Click on checkbox 4. What else do you notice?

6. Fill in the blanks:

a. If two sides of a triangle are congruent, then the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ opposite those sides are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

b. The bisector of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ angle of an isosceles triangle is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ bisector of the base (3rd side).