

Pythagorean Relationship

1. Investigate if the Pythagorean relationship works for shapes other than squares.
 - a) Use pencil and square dot paper or geometry software to draw a right triangle.
 - b) Draw a semicircle on each side of the triangle, so that the radius of the semicircle is half of the length of the side.
 - c) Find the areas of the 3 semicircles.
Area of semicircle = $\frac{\pi \times r^2}{2}$
 - d) Does the Pythagorean relationship still hold? Circle YES or NO.
 - e) Repeat the investigation using equilateral triangles on each side of the right triangle.

To explore the Pythagorean relationship for shapes other than squares, follow the Web Links on the same page where you found this file on the *MathLinks 8 Adapted* Online Learning Centre.

