

**Math Grades 9 - 11**  
**Geometry**

MA.912.G.1.Su.b  
MA.912.G.2.7  
MA.912.G.7.7

***The Essential Writings of Ralph Waldo Emerson***

“History”

Ralph Waldo Emerson

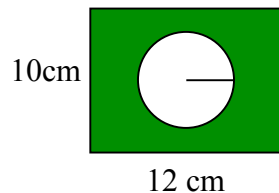
**Reading Level:** 9.4

**Activity:**

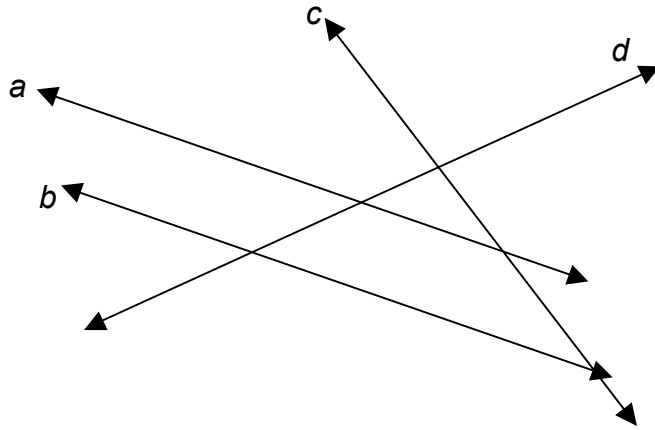
1. In Emerson’s writing “History”, there are several mathematical references. The poem in the introduction states, “*I am owner of the sphere...*” Define sphere in geometrical terms. If the radius of a sphere is doubled, what happens to the volume? Explain your reasoning.

2. Later in the reading, the following statement is made: “*Then we have it once more in their architecture, a beauty as of temperance itself, limited to the straight line and the square,—a builded geometry.*” Define square and straight line. Draw an example of each. If the side of a square is doubled, what happens to the area? Explain your reasoning.

3. Another mathematical reference is made in the statement, “*—a round block in the center*”. Below is an example of a rectangle with a round block in the center. If the radius of the circle (round block) is 3 cm, find the area of the shaded region.



4. Emerson says, “parallel to the horizon” when remembering a cloud on a summer day.  
Define parallel. Identify the parallel lines in the drawing below.



5. When describing a cherub, Emerson says the wings are “symmetrical.”  
Define symmetrical. Draw an example of symmetrical wings.