Name: _____

1. Consider the shape defined by the equation

$$(x + 3)^2 + y^2 + (z - 3)^2 = 27.$$

Describe the shape. Make sure that your description communicates the following:

- The name of the shape.
- The size of the shape.
- The precise location of the shape.

2. Let A have coordinates $(4, 9)$. Find the component form of the vector from A to the origin.