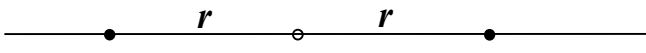**ANSWERS**

A) _____

B) _____

C) _____

A) The radius of a right circular cylinder is 10 inches and its height is 4 inches. Determine the value of x (> 0) which, when added to either the radius or the height, produces two different right circular cylinders of equal volume.
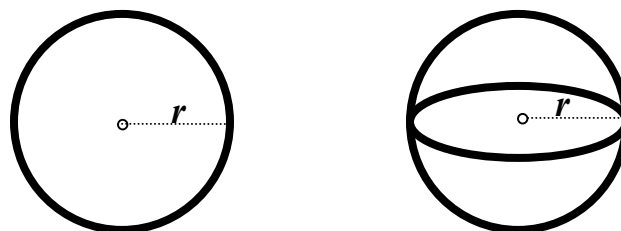
B) **Definition**:   A <u>locus of points</u> refers to a set of all points (and only those points) that satisfy a given condition.

Example: The locus of points equidistant from a given point

on a line: 2 points

in a plane: a circle

in space: a sphere

<u>Compute</u> the total area of the region(s) bounded by the locus of points <u>in space</u> 4 cm from a given plane <u>and</u> 6 cm from a fixed point in that plane.

C) The following diagram is the cross-section of the frustum of a right circular cone. <u>Compute</u> the volume of the frustum.