

2. Do you think altering the radius measurement by a magnitude of 2 or the height by a magnitude of 3 would affect the volume of a cylinder more?
 - a. If you alter the radius by a magnitude of 2, how does the volume of a cylinder change?

 - b. If you alter the height by a magnitude of 3, how does the volume of a cylinder change?

 - c. Was your prediction accurate? Explain why.

3. Do you think altering the radius by a magnitude of .5 or the height by a magnitude of .25 would affect the volume of a cone more?
 - a. If you alter the radius by a magnitude of .5, how does the volume of a cone change?

 - b. If you alter the height by a magnitude of .25, how does the volume of a cone change?

 - c. Was your prediction accurate? Explain why.

2. Do you think increasing the radius measurement by 1 foot or the height measurement by 2 feet would affect the volume of a cylinder more?

$$V = \pi r^2 h$$

- Cylinder 1 has a radius and height of 1 foot. Find the volume of cylinder 1.
 - Cylinder 2 has a radius of 2 feet and a height of 1 foot. Find the volume of cylinder 2. How did the volume of Cylinder 1 change?
 - Cylinder 3 has a radius of 1 foot and a height of 3 feet. Find the volume of cylinder 3. How did the volume of Cylinder 1 change?
 - Based on the volume of cylinder 2 and cylinder 3, does increasing the radius measurement or the height measurement of a cylinder affect the volume more?
3. Do you think decreasing the radius measurement by a half or the height measurement by three fourths would affect the volume of the cone more?

$$V = \frac{1}{3} \pi r^2 h$$

- Cone 1 has a radius and height of 1 foot. Find the volume of that cone 1.
- Cone 2 has a radius of 0.5 feet and a height of 1 foot. Find the volume of cone 2. How did the volume of Cone 1 change?
- Cone 3 has a radius of 1 foot and a height of 0.25 feet. Find the volume of cone 3. How did the volume of Cone 1 change?
- Based on the volume of cone 2 and cone 3, does decreasing the radius measurement or the height measurement of a cone affect the volume more?