

Geometry

Name: _____

Date: _____ Block: _____

Glasses: Re-Engagement Lesson

Use the student work below to determine how each student approached the calculations necessary for finding the volume of Glass 2.

Student A:

b. Glass 2

$$\frac{4\pi 3^3}{3} \quad \frac{4 \cdot 27 \cdot \pi}{3} \quad \frac{108 \cdot \pi}{3} \approx \frac{339.2}{3} = \frac{113.09}{2} \quad V \approx 56.5 \text{ cm}^3$$

Notes: _____

Student B:

b. Glass 2

$$\pi 3^2 \cdot 3 = 84.82 \quad \frac{4\pi 3^3}{3} = 56.55 \quad \begin{array}{r} 84.82 \\ + 56.55 \\ \hline 141.37 \end{array} \quad \underline{141.37} \text{ cm}^3$$

Notes: _____

Student C: b. Glass 2

$$\begin{array}{l} \text{TOP HALF} \\ \pi 3^2 \cdot 3 \\ \pi 9 \cdot 3 \\ 28.3 \cdot 3 \\ \hline 84.9 \end{array} \quad \begin{array}{l} \text{BOTTOM } 1/2 \\ 1/2 \left(\frac{4\pi 3^3}{3} \right) \\ \frac{4\pi 9}{3} = \\ 4 \cdot 28.3 = \\ \hline 113.2 \\ 37.7 \\ \hline 18.85 \end{array} \quad 84.9 + 18.9 = 103.8 \quad \underline{103.8} \text{ cm}^3$$

Notes: _____

Student D:
b. Glass 2

$$V = \pi r^2 h$$
$$169.6$$

$$\underline{169.6} \text{ cm}^3$$

Notes: _____

Student E:

b. Glass 2

$$\frac{4\pi r^3}{3} = \frac{(4)\pi(3)^3}{3} = 113.1$$
$$\pi r^2 h = \pi(3)^2(3) = 84.8$$
$$+ \frac{84.8}{197.9}$$

$$\underline{197.9} \text{ cm}^3$$

Notes: _____

Student F:

b. Glass 2

$$\begin{array}{r} 3.14 \\ \times 4 \\ \hline 12.56 \end{array}$$

$$\frac{4\pi(3)^3}{3}$$

$$12.56(21)$$

$$\frac{339.12}{3} = 113.04$$

$$\underline{113.04} \text{ cm}^3$$

Notes: _____

I believe that Student _____ showed the correct work because _____