

GROUP NAME: The Techs Next Door

Date: 9/2

Student Names (First and Last)

Speaker/Presenter: Jacob

Independent Variable (x-axis): height

Dependant Variable (y-axis): width

Writer/Prep: Jason

Leader/Collaborator: Milton

Conclusion (in words):

The volume of the glass is  $4.218142693 \pi \approx 28.29 \text{ in}^3$

Supporting Work:

height  $\rightarrow 6 \text{ in}$

$y$	$1 \text{ in}$	$2 \text{ in}$	$2 \text{ in}$	$4 \text{ in}$	$6 \text{ in}$
$x$	$2 \frac{1}{2} \text{ in}$	$2 \frac{1}{2} \text{ in}$	$2 \frac{7}{8} \text{ in}$	$2 \frac{1}{2} \text{ in}$	$2 \frac{1}{2} \text{ in}$

$$y = (.02275 \cdot x^4 - .2135 \cdot x^3 + .595 \cdot x^2 - 13 \frac{1}{8} \cdot x + 224 \frac{1}{4}) \frac{1}{2}$$

GROUP NAME: Wanning Group

Date: 9/2/17

Student Names (First and Last)

Speaker/Presenter: Sybil Gior

Independent Variable (x-axis): Distance from base

Writer/Prep: Tyler Df

Dependant Variable (y-axis): radius

Leader/Collaborator: Wanning I.

Conclusion (in words):

20.35134717 in<sup>3</sup>

Supporting Work:

x	0	$\frac{1}{2}$	1	$\frac{3}{2}$	2	$\frac{5}{2}$	3	$\frac{7}{2}$	4	5	$\frac{9}{2}$	6
y	1.875	2.125	1.175	1.125	.875	.75	.6875	.625	.6875	.685	.75	.875

$$f(x) = -0.05...x^4 + 0.037...x^3 - 0.076...x^2 - 0.575...x + 2.02...$$

$$f_{\text{int}}((\text{Reg Eq})^2, x, 0, 6) = 6.4778035001 \times \pi$$

$$= 20.35134717$$

$$\pi \int_0^6 (f(x))^2 dx$$

GROUP NAME: Baby ♥ Doctors  
 Date: Sept 2

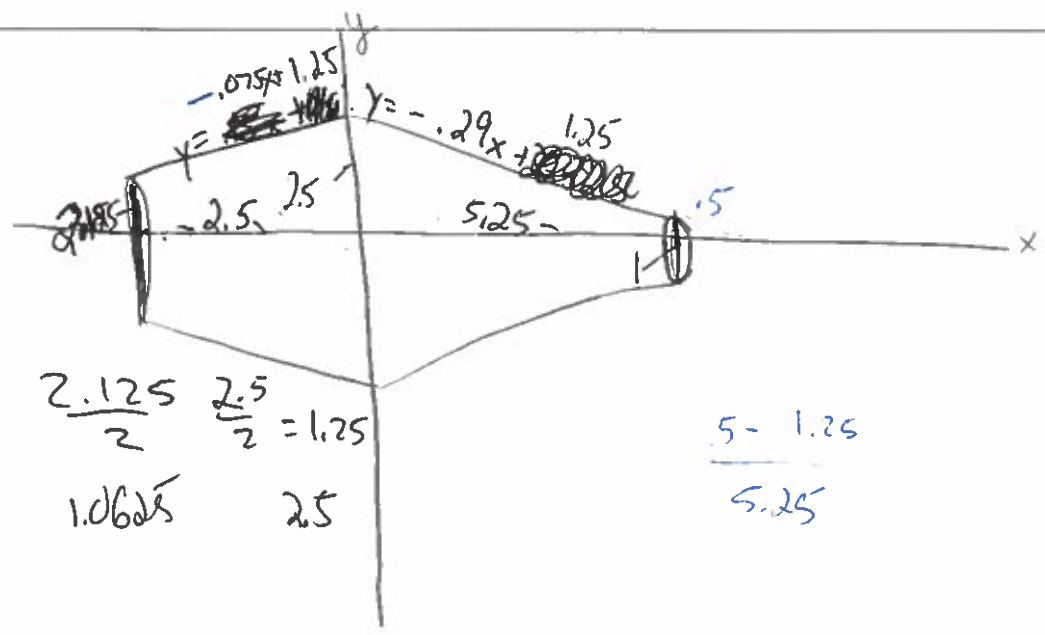
Student Names (First and Last)  
 Speaker/Presenter: Michael + Kathleen  
 Writer/Prep: Jenna G. Trofanc  
 Leader/Collaborator: Catherine

Independent Variable (x-axis): \_\_\_\_\_  
 Dependant Variable (y-axis): \_\_\_\_\_

Conclusion (in words):

Supporting Work:

$2\frac{1}{8}$	$2\frac{1}{2}$
$2\frac{1}{2}$	
1	$5\frac{1}{4}$



$$\frac{2 \cdot 1.25}{2} \cdot \frac{2.5}{2} = 1.25$$

$$1.0625 \cdot 2.5$$

$$\frac{5 - 1.25}{5.25}$$

$\pi r^2$   
 $\pi$

$$\int_{-2.5}^0 \pi r^2 dx$$

$$\int_0^{5.25} \pi r^2 dx$$

$$\int_{-2.5}^0 \pi (-0.075x + 1.25)^2 dx + \int_0^{5.25} \pi (-0.29x + 1.25)^2 dx$$

23.9 in<sup>3</sup> ~~100 in<sup>3</sup>~~  
 390 ml

GROUP NAME: Three eyes

Date: 8/5/14

Student Names (First and Last)

Speaker/Presenter: Andy

Writer/Prep: Jun

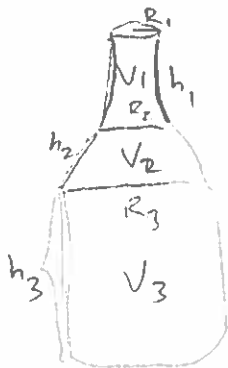
Independent Variable (x-axis): \_\_\_\_\_

Dependant Variable (y-axis): \_\_\_\_\_

Leader/Collaborator: Chunlin

Conclusion (in words):

Supporting Work:



- $r_1 = 0.5 \text{ inch}$
- $r_2 = 0.7 \text{ inch}$
- $r_3 = 1.25 \text{ inch}$
- $h_3 = 4.5 \text{ inch}$
- $h_2 = 0.5 \text{ inch}$
- $h_1 = 3.0 \text{ inch}$

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

$$V_1 = \int_0^{0.5} (1.25-x)^2 \pi dx = \cancel{2.467} 0.802$$

$$V_2 = \int_0^{0.5} (0.7 - \frac{1}{15}x)^2 \pi dx = 1.723$$

$$V_3 = 1.25^2 \pi \cdot 4.5 = \cancel{11.72} 7.03\pi (= 22.09)$$

$$V_1 + V_2 + V_3 = 24.615$$

