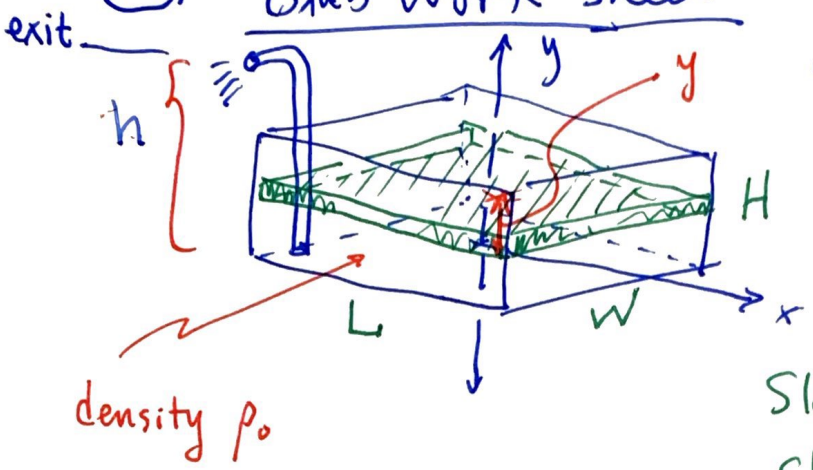
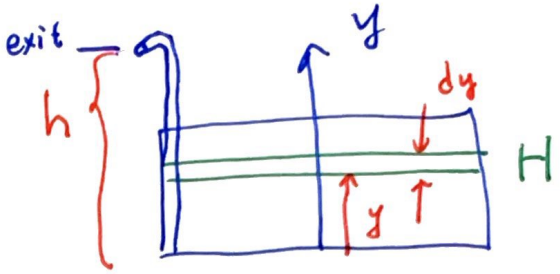
Name: _____
Math 211, Classwork:_____
R Erickson, College of the Canyons

(A) Slab "Work" sheet





Slab Thickness = dy

Slab Area = _____

Slab Volume = _____ $\cdot dy$

Slab weight* = _____ $\cdot g \cdot dy$

Slab-to-Exit Distance = _____

Limits to drain full tank:

$y =$ _____ to _____

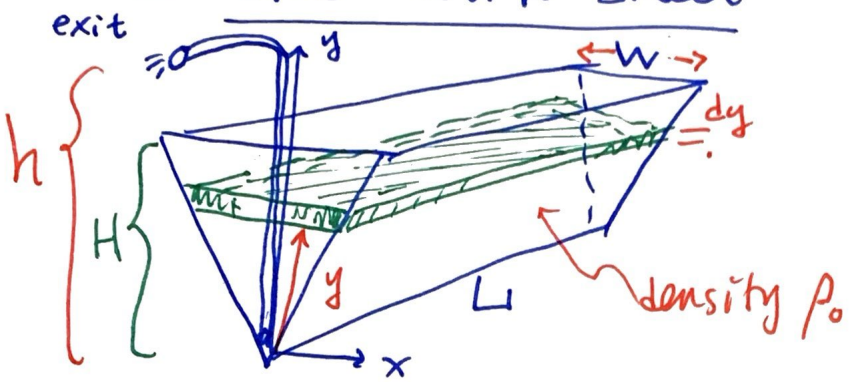
• Set-Up Integral:

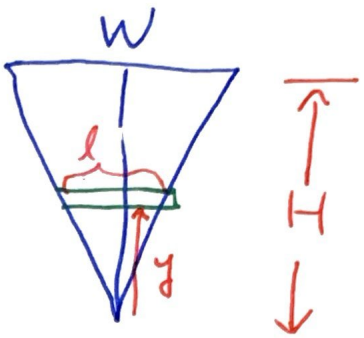
$$\text{Work} = \int_{y=\_\_}^{\_\_} \text{weight} \cdot \text{distance}$$

$$W = \int_{y=\_\_}^{\_\_} \quad dy$$

* weight = density · Volume · gravity

B Slab "work" sheet





Similar triangles

__ is to __ AS __ is to __

__ : __ as __ : __

$$\frac{(\quad)}{(\quad)} = \frac{(\quad)}{(\quad)}$$

$l =$

Slab thickness = dy

Slab Area = _____

Slab Volume = _____ · dy

Slab weight = _____ · g · dy

Slab-to-Exit Distance = _____

Limits to Drain full Trough:

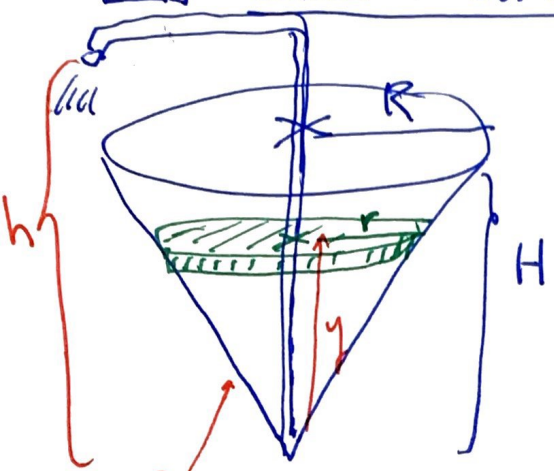
$y =$ __ to __

- Set-Up Integral

$$\text{Work} = \int_{y=\_\_}^{\overline{\quad}} \text{weight} \cdot \text{distance}$$

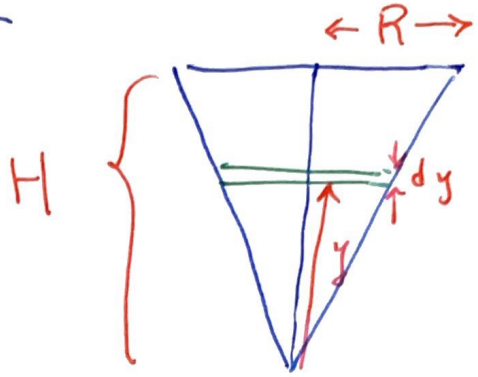
$$W = \int_{y=\_\_}^{\_\_} \quad dy$$

C Slab "Work" sheet



density

$$\rho = \rho_0\left(1-\frac{y}{H}\right)$$



Similar Triangles

___ is to ___ AS ___ is to ___

___ : ___ as ___ : ___

$$\frac{(\quad)}{(\quad)} = \frac{(\quad)}{(\quad)}$$

$r =$

Slab Thickness = dy

Slab Area = _____

Slab Volume = _____ · dy

Slab weight = _____ · g · dy

Slab-to-Exit Distance = _____

Limits to drain full Conical Tank:

$y =$ _____ to _____

Set-Up Integral:

$$\text{Work} = \int_{y=\_\_}^{\overline{\quad}} \text{weight} \cdot \text{distance}$$

$$W = \int_{y=\_\_}^{\overline{\quad}} \quad dy$$