

Tuesday, April 7/15
Science 122

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1. Questions?
Worksheet - Pressure and Depth in Static Fluid
 2. Pascal's Principle
 3. Worksheet – Review: Fluid Mechanics - Hydrostatics -> #1, 2, 5, 7
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4. Buoyancy and Archimedes' Principle
 5. Apparent Weight
 6. Worksheet: Archimedes' Principle
 7. Experiment 13.1 - Archimedes' Principle
 8. ICA - Hydrostatic Fluids: ?



Worksheet - Pressure, Etc.

#4. $W = 169 \text{ N}$

$$0.400 \text{ m} \times 0.200 \text{ m} \times 0.100 \text{ m}$$

$$P = 2.02 \times 10^5 \text{ Pa}$$

$$P = \frac{F}{A}$$

smallest # blocks

$$P = \frac{NF}{A}$$

$$N = \frac{PA}{F} \leftarrow$$

$$N = 24 \text{ blocks}$$

#5. b) $W = Fd$ $\rightarrow$ constant force.

Grade II $W = \Delta E_k \leftarrow$

$W = \Delta E_g \leftarrow$

$$W = \Delta E_e$$

$$W = E_{ef} - \cancel{E_{ei}}$$

$$W = \frac{1}{2} k x_f^2$$

$$W = \frac{1}{2} (3100) (0.055)^2$$

$$W = 5.4 \text{ J}$$

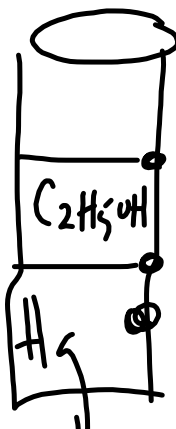
10. $P_2 = P_1 + \rho gh \leftarrow$ hydrostatic formula.

$$\Delta P = P_2 - P_1 = \rho gh$$

$\uparrow$ gauge pressure.

$$\rho gh = 2.45 \times 10^5 \text{ Pa}$$

13.



$P_1 = 1 \text{ atm} = 1.01 \times 10^5 \text{ Pa}$
 $110 \text{ cm} = 1.10 \text{ m}$
 $7.10 \text{ cm} = 0.0710 \text{ m}$

$P_2 = P_1 + \rho_{\text{eth}} g h$
 $P_3 = P_2 + \rho_{\text{Hg}} g h$

Tuesday, April 7/15
Physics 122/121

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1. Unit 1 Test
 2. Text: Page 536, PP #1-8?
Text: Page 549, PP #13
Page 570, Prob. #17, 19, 20 (omit graph) } HW
 3. Quiz: U2-S1 (Projectiles) - Friday, April 10/15



Tuesday, April 7/15
Science 10

1. Return: Quiz: Ionic Compounds
 2. Worksheet - Counting Atoms (Front Side)
 3. Types of Reactions
 4. Balancing Chemical Reactions
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5. Worksheet - Balancing Chemical Reactions (Front Side)
 6. Formation/Synthesis Reactions
 7. Decomposition Reactions