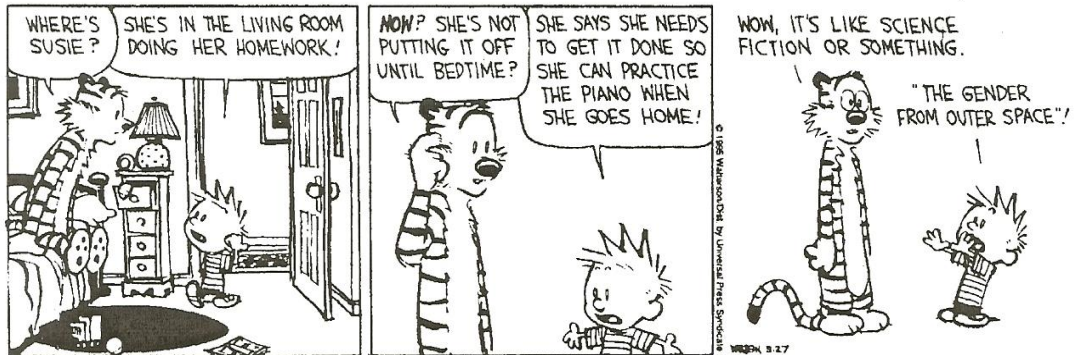


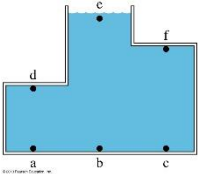
AP 2 Fluids WS 1

Que es tu nombre? _____

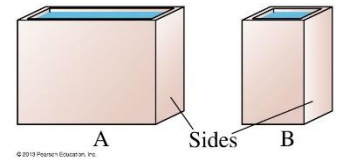


*Green Eggs and Hamlet - Would you kill him in his bed? Thrust a dagger through his head? I would not, could not, kill the king. I could not do that evil thing. I would not wed this girl, you see
Now get her to a nunnery. -- Washington Post's "Style Invitational"*

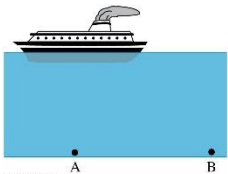
- Rank in order, from largest to smallest, the pressures at a, b, and c in Figure 15.2. Explain.



- Figure 15.4 shows two rectangular tanks, A and B, full of water. They have equal depths and equal thicknesses (the dimension into the page) but different widths. A. Compare the forces the water exerts on the bottoms of the tanks. Is F_A larger than, smaller than, smaller than or equal to F_B ? Explain.

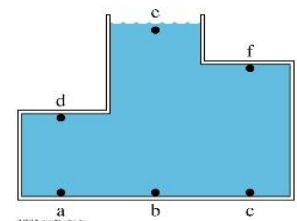


- Compare the forces the water exerts on the sides of the tanks. Is F_A larger than, smaller than, or equal to F_B ? Explain.



- In the figure, is p_a larger than, smaller than, or equal to p_b ? Explain.

- Rank in order, from largest to smallest, the pressures at d, e, and f in the figure on the right. Explain.



5. What is the volume in mL of 55 g of a liquid with density of 1100 kg/m^3 ?

6. A $6.0 \text{ m} \times 12.0 \text{ m}$ swimming pool slopes linearly from a 1.0 m depth at one end to a 3.0 m depth at the other. What is the mass of water in the pool?

7. The deepest point in the ocean is 11 km below sea level, deeper than Mt. Everest is tall. What is the pressure in atmospheres at this depth?

8. A. What volume of water has the same mass as 8.0 m^3 of ethyl alcohol?

B. If this volume of water is in a cubic tank, what is the pressure at the bottom?

9. A 1.0 m diameter cylinder of liquid is 2.0 m deep. The pressure at the bottom of the vat is 1.3 atm . What is the mass of the liquid in the vat?

10. 50 g of gasoline are mixed with 50 g of water. What is the average density of the mixture?