

Good Morning

- Please get a whiteboard.
- Write down the type of problem that you would like to see reviewed the most.
- We will begin the review in a moment.

This Week

- M: Review for quiz
- T: Quiz
- W: Thermochemical Equations
- R: Core 3 - Thermochemistry
- F: Short Quiz, begin acids and bases

Tonight

- Study for Quiz

study

(verb)

The act of texting, eating and watching TV with an open textbook nearby.

Quiz Topics

- Solutions: $M = \text{mol}/V$ & $M_1V_1 = M_2V_2$
- Gas pressure and temperature conversions
- Thermochemistry: Heat transfer, specific heat, heat, heating curves, conservation of energy, heat of vaporization, heat of fusion.

A barometer reads ____mmHg. Convert this
pressure to kPa.

$$1 \text{ atm} = 14.7 \text{ psi} = 760 \text{ mmHg} = 760 \text{ torr} = 101.3 \text{ kPa}$$

The pressure in a bicycle is ____psi. What is the pressure in the tire in atmospheres?



The temperature on the surface of the sun is 5,778 degrees kelvin. What is the temperature in celsius?



A newly discovered planet has a surface temperature of _____ degrees celsius.
What is the temp in kelvin?

Goofy needs to make a _____ ml of _____ M
 H_2SO_4 solution. What mass of H_2SO_4
does Betty have to measure out?



Herman Has _____ ml of _____ M of _____ stock solution. How much water should he add to get _____ ml of _____ M solution?



Boba Fett creates _____ L of _____ M HCl to blind security of an escaped con. How many ml of _____ M stock solution did he use?



The specific heat of He is 5.19J/gC . How much energy is released when ____g of He has a temperature change of ____?



An unknown metal has a specific heat of ____ J/gC. It absorbs ____ J of heat energy. The initial temperature of the metal is _____. What is the final temperature of the metal?





Calorimetry: Crash Course Chemistry #19

Calculate the heat given off by the system

___ ml of water is at ___ °C. ___ g of unobtainium at ___ °C is added to the water. The final temperature of the system is ___ °C. What is the specific heat of unobtainium?



The specific heat of granite is $0.79\text{J/g}^\circ\text{C}$. ___g of granite at ___ $^\circ\text{C}$ is added to ___ml of water. If the water temperature increases by ___ $^\circ\text{C}$, what mass of granite was added to the water?

Sulfur melts at 119°C and boils at 445°C . It has a specific heat of sulfur is $0.732\text{J/g}^{\circ}\text{C}$. _____g of sulfur increases in temperature from _____ $^{\circ}\text{C}$ to _____ $^{\circ}\text{C}$. The heat of fusion is 1.73kJ/mol . The heat of vaporization is 9.8kJ/mol . How much energy is absorbed?