

**Review for Unit 3: Solids and Liquids Answers ONLY!!!**

- 1) Review all your vocabulary including: 3 states of matter, what effects whether something is in a particular state, phase change, boiling/condensing, freezing/melting point, specific heat, heat of fusion, and heat of vaporization.
- 2) Calculation questions on Freezing and boiling of solutions and boiling of pure substances

**Using your chart, answer the following questions**

- 3) Find the energy needed to make 250g of solid copper go up 575°C.

**55,344 J                      1 system**

- 4) Find the mass of water if 7291 J is released as it goes down in temperature 67 °C.

**26.0 grams                      1 system**

- 5) Find the energy needed to melt 756 grams of aluminum at 660 °C.

**703,080 J                      1 system**

- 6) How much energy is needed to raise the temperature of 52.3g of salt from 100°C to 1365°C?

**228,182 J                      1 system**

- 7) 367g of gold at 300°C is put on a block of ice at 0°C. How many grams of ice will melt as the gold cools?

**42.2 grams                      2 system**

- 8) 225g of gold at 600°C are placed in 252 ml of water at 25°C until the temperature of the gold is 200°C. What is the final temperature of the water?

**39.9 °C                      2 system**

- 9) 350g of metal X at 180°C are placed in 351g of water at 31°C. The final temperature of both is 50°C. Find the specific heat of Metal X. (M.P. of metal X is 610°C).

.613 J/g °C                      2 system

- 10) Find the energy needed to make 255g of water go from -55°C to 65 °C.

183,346 J                      1 system

- 11) 287g of copper at 300°C is put on a block of ice at 0°C. How many grams of ice will melt as the copper cools?

99.2 grams                      2 system

- 12) 185 grams of gold at 600C is cooled to 200C in 375 grams of water at 25C. What is the final Temp of the water?

31 °C                      2 system