

Unit VI. States of Matter. Assignment 10: Phase Change/Temperature Change Worksheet

1. Find the change in boiling point of water from standard pressure to a pressure of 0.79 atm.
2. Find the heat needed to raise 250g of ice @ -15°C to liquid water @ 25°C .
3. Find the heat lost when 45.5 g of water is cooled from 458 K to 333 K @ 101.3 kPa.
4. How much water can be vaporized by 230 kJ?
5. How much liquid water is produced from a 2.6 kg block of ice that is originally @ -12°C with 65 kcal of heat?
6. A tub is fill with 200 kg of water @ 14.8°C . A 100 kg block of hot aluminum is dropped into the tub. Assume no water evaporated and the final temperature of water/ion combination is 22°C . How hot was the aluminum? Aluminum has a specific heat of $0.22 \text{ cal/g } ^{\circ}\text{C}$.