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Latent Heat Quiz

1. Determine the amount of energy required to melt 5 pounds of ice at 0 °C.
2. At the melting point, an unknown metal has a mass of 32 g and releases 365 J of energy as it solidifies. Identify the metal.
3. A sample of gold has a mass of 50 g and an initial temperature of 720 °C. Determine the energy required to melt the sample.
4. A sample of silver has a mass of 50 g and an initial temperature of 720 °C. Determine the energy required to melt the sample.
5. A sample of iron has a mass of 50 g and an initial temperature of 720 °C. Determine the energy required to melt the sample.
6. Determine the amount of calories required to vaporize 10 g of water at 100 °C.
7. Determine the amount of kilocalories required to vaporize 10 g of water at 70 °C.
8. Determine the amount of Calories required to bring 10 g of ice at 0 °C to a temperature of 25 °C.
9. A 50 g sample of water with a temperature of -15 °C absorbs 25 kJ of energy. Determine the final temperature of the water.