Heating Curve Practice

1. How much heat is added when 50.0 g of ice at -10.0oC is changed to liquid water?

(Ans. 1.77 x 104 J)

1. How much heat is added when 0.50 kg of liquid water at 20.0oC is changed into vapor at 100.0oC? (Ans. 1.3 x 106 J)
2. How much heat is absorbed when 20.0 g of water at 82oC is raised to 110oC? (Ans. 4.7 x 104 J)
3. How much heat is released when 45 g of water at 30.0oC is placed in a freezer at -10oC. (-2.2 x 104J)
4. How much heat is released when 15 grams of liquid water at 30.0oC freezes into ice? (Ans. -6.9 x 103 J)
5. How much heat is released when 50. grams of liquid water at 100.0oC is placed in a -20oC freezer? (-4.0 x 104J)
6. How much heat is absorbed if 10. grams of ice at -3.0oC is converted into vapor at 108oC (3.0 x 104J)