Heat with Phase Change Worksheet

Hf for water = 334 J/g Hv for water = 2260 J/g

q=Hm q=mcΔT c for water = 4.18 J/g°C

* 1)  How many joules are required to heat 250 grams of liquid water from 00 C to 1000 C ?
* 2)  How many joules are required to melt 100 grams of water?
* 3)  How many joules are required to boil 150 grams of water?
* 4)  How many joules are required to heat 200 grams of water from 25 ̊C to 125 ̊C?
* 5)  How many joules are given off when 120 grams of water are cooled from 25 ̊C to -25 ̊C?
* 6)  How many joules are required to heat 75 grams of water from -85 ̊C to 185 ̊C?
* 7)  How many joules are required to heat a frozen can of juice (360 grams) from -5 ̊C (the temperature of an overcooled refrigerator) to 110 ̊C (the highest practical temperature within a microwave oven)?