Bio GT 3rd period Calorie Problems

1. At a party, everyone is eating 250 kcal of chips. There are 3 floors and 18 people per floor. How much would the temperature of 250 mL of water be increased by all of these calories?
Total calories = 13, 500, 000
13,500 cal would increase the temperature of 250 mL of water **54,000** degrees C.
2. How many kcals to increase the temp of 5mL 5 degrees C?
25 calories, so **0.025 kcal**
3. 6 kcal would increase the temperature of how much water by 10 degrees C?
6 kcal would increase 6L 1 degree
So it would increase **0.6L** 10 degrees (600 mL)
4. 8 kcal would increase the temp of how much water by 10 degrees C?
8 kcal would increase 8L 1 degree
So it would increase **0.8L** (800 mL) 10 degrees
5. How many kcals to increase the temperature of 700 mL of water 32 degrees?
700 calories to get 700 mL up 1 degree
22400 calories to get 700 mL up 32 degrees
**22.4 kcal**
6. 7000 kcal would increase 1 mL how many degrees?
7000 kcal would increase 1 L 7000 degrees C
So it would increase 1 mL **7,000,000 degrees C**