Bio GT 5th Period Calorie Problems

1. How many kcal would it take to increase the temp of 2.1 x 1012 L by 20.57 degrees C?  
   2.1 x 1012 kcal would increase the temp of 2.1x 1012 L 1 degree  
   2.1 x 1012 x 20.57 = **4.3197 x 1013 kcal**
2. How many kcals does it take to increase the temp of 1L by 20 degrees C?  
   **20 kcal**
3. How many calories to raise the temp. of 1.5 L by 0.5 degrees C?  
   1.5 kcal to increase 1.5 L 1 degree  
   So it would take 0.75 kcal to increase the temp of 1.5 L 0.5 degrees C  
   0.75 kcal = **750 cal**
4. How many degrees can 1.2 kcal raise 16 mL of water?  
   1.2 kcal = 1200 calories  
   1200 cal / 16 mL = **75 degrees C**
5. How many kcal to increase the temp of 2L of water 20 degrees C?  
   2 kcal would increase 2L 1 degree  
   2 x 20 = 40  
   **40 kcal** would increase 2L 20 degrees
6. How many kcal to increase the temp of 9L by 3 degrees C?  
   9 kcal to increase 9L 1 degree C  
   9 x 3 = 27  
   **27 kcal** to increase the temp of 9L 3 degrees C
7. 500 kcal increases the temperature of how much water 1 degree C?  
   **500 L** or **500,000 mL**