Name _____   edHelper.   Date _____

Integers

Complete.

1. Acetylene is a flammable gas used in welding. The boiling point of acetylene is -84°C. If a sample of acetylene was cooled to 51°C below its boiling point (where it would become a solid), what would its temperature be?	2. Three cars came to a sudden stop on the highway. The acceleration of one was -27 m/s². The acceleration of another was -34 m/s². The acceleration of the other car was exactly halfway between the other two accelerations. What was the acceleration of the third car?
3. Chemical Q is unstable at room temperature, so it is kept in a refrigerator at -29°C. Once removed from the fridge, its temperature rises at a rate of 4°C per minute. Assuming a bottle of chemical Q was exactly -29°C when removed from the fridge, what will its temperature be six minutes after removal from the fridge?	4. Jasmine performs an endothermic reaction in a flask on the bench. At the beginning of the reaction the temperature in the flask is 27°C. The temperature decreases by 23°C. What is the new temperature?
5. Organic compounds of varying carbon chain lengths have boiling points that increase as the number of carbon atoms increases. Methane (CH4) boils at -164°C. If another carbon compound with a longer carbon chain boils at a temperature that is 110°C higher than the boiling point of methane, what is its boiling point?	6. Mr. Bloop put a vial of protein powder in the -25°C freezer. It was accidentally left out on the lab bench by one of his students. It had been there for most of the day, and the temperature in the lab was 16°C. Once in the freezer, the temperature of the powder began to drop at a rate of 4°C every 5 minutes. Assuming the temperature change rate was constant (which it really isn't, but we'll pretend), how long would it take to get to the temperature of the freezer?