

Charles' Law Worksheet

- 1) The temperature inside my refrigerator is about 4°C Celsius. If I place a balloon in my fridge that initially has a temperature of 22°C and a volume of 0.5 liters, what will be the volume of the balloon when it is fully cooled by my refrigerator?
- 2) A man heats a balloon in the oven. If the balloon initially has a volume of 0.4 liters and a temperature of 20°C , what will the volume of the balloon be after he heats it to a temperature of 250°C ?
- 3) On hot days, you may have noticed that potato chip bags seem to "inflate", even though they have not been opened. If I have a 250 mL bag at a temperature of 19°C , and I leave it in my car which has a temperature of 50°C , what will the new volume of the bag be?
- 4) A soda bottle is flexible enough that the volume of the bottle can change even without opening it. If you have an empty soda bottle (volume of 2 L) at room temperature (25°C), what will the new volume be if you put it in your freezer (-4°C)?