# Temperature problems

1. Compare the energy in 1C°, 1F°, and 1K

2. Convert 10K to C°

3. Convert 20F° to C°

4. Convert 54F° to K

5. Convert 673K to F°

6. Convert 253 C° to F°

7. Arrange the temperatures from greatest energy to least 200K, 10C, and 40F.

8. Arrange the temperatures from greatest energy to least 400K, 85C, and 180F.

9. What is the kinetic energy of 10 moles of gas at 200K?

10. What is the kinetic energy of 500 moles of gas at 300C?

**11. What is the kinetic energy of 20 moles of gas at 450F?**

**12. The sun's atmosphere can be as hot as $10^6$ C. Lead boils somewhere around 3000 C. If you place a mole of lead into the sun's atmosphere it will surely enter the gas phase. Determine the kinetic energy of a mole of lead in the sun's atmosphere. Determine the speed of the gas.**