A container is shaped like a cube with a side length of 1.5 meters. It is filled to the brim with a liquid that has a density of 1,200 kg/m^3.

1. Convert the volume of the container into kiloliters. _____

2. A student knocks over the container and spills half off the water out. What is the mass of the water left in the container in megagrams?

   _____

3. The student runs to tell the professor about the spill at 3.2 meters per second. How fast is the student travelling in kilometers per hour?

   _____

4. The professor runs to the lab space without regard for the rules and notices the container is now leaking at a rate of 200 mL per second. What is the rate of leakage in cubic meters per hour?

   _____

5. The thermostat goes crazy and starts heating up the room. The temperature of the room increases at a rate of 27°C/hr. What's the rate of temperature change in °K/min?

   _____