33. Which statement describes why convection is the main method of heat transfer in liquids?

A Heating a liquid decreases its density.

B Heating a liquid decreases its thermal capacity.

C Heating a liquid increases its density.

D Heating a liquid decreases its thermal capacity.

The correct answer is A

A Heating a liquid decreases its density.

That is how hot liquid raises up, cools and goes down, and cool liquid goes down, heats and goes up, etc.

This is called convection which is the method of heat transfer in fluids (liquids and gases).

You have made similar mistakes in real Cambridge practical physics exam this month.

If the mass is larger then there is more internal energy.

Internal energy is the energy of the object; the total kinetic and potential energies of the particles.

Much water will cool down for longer period of time then little water.

If the temperature of water is very different from the temperature of the environment then the temperature of water will change quickly.

If the water has the same temperature as the environment, then there will be no more heat transfer.

The closer the temperature of water to the temperature of the environment, the slower the temperature changes.

The graph of temperature of water (vertical axis) against time (horizontal axis) must be similar to exponential decay with negative gradient decreasing in its magnitude as time progresses.

This is the graph:

