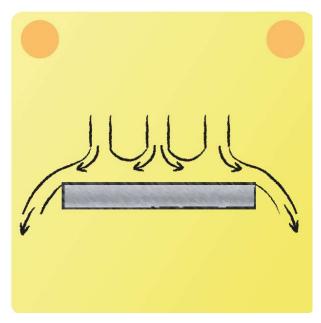


Lecture 10 - Question 4



Which terms apply to the sketched situation?

Natural convection - the buoyancy is the driving force for the fluid motion. This is caused by the fact that the density of the fluid changes, as the fluid temperature changes.



External convection - the fluid has at least one side that is not bounded by a solid surface.

Heating of the plate - the fluid motion is downwards, as the fluid density increases due to an decrease of the fluid temperature. The decrease in fluid temperature is caused by a heat flow towards the plate.