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a)

For a floating object:

b)

For a floating object:

a)

Bernoulli’s equation:

b)

For the ground:

For the first floor:

Thermal equilibrium equation:

Since, is equally for all slabs, therefore, the smaller of thermal conductivity, the bigger different temperature of two side of the slab we have.

Thus the fourth slab has biggest different temperature which corresponding to the smallest thermal conductivity.

a)

For a closed cycle

b)

For a clockwise cycle:

Thus,