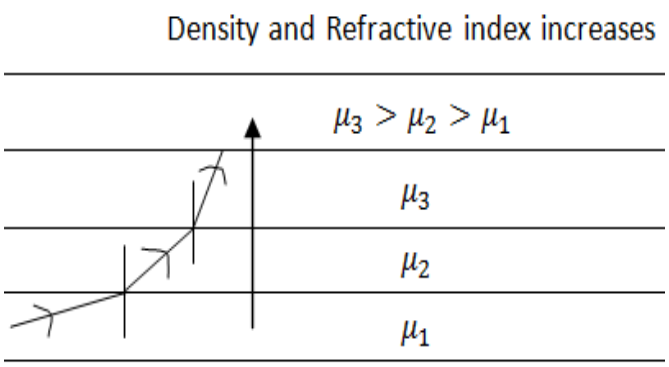
25. On a hot summer night, the refractive index of air is smallest near the ground and increases with height from the ground. When a light beam is directed horizontally, the Huygens' principle leads us to conclude that as it travels, the light beam:

(1) becomes narrower
(2) goes horizontally without any deflection
(3) bends downwards
(4) bends upwards

Answer:



Light beam directed horizontally will bend upward because of difference in density (refractive index).

Correct option (4) bends upwards