



A diagram showing a dielectric sphere of radius R with refractive index $n = 1$ centered within a medium of refractive index $n = 3.1$. The sphere is represented by a thick blue circle. A black line segment connects the center of the sphere to its rightmost edge, labeled R . The label $n = 1$ is placed inside the sphere, and $n = 3.1$ is placed outside the sphere to the right. The entire diagram is bounded by a thick blue horizontal bar at the top and bottom, with a dashed blue line segment on the left side.

$$n = 1$$

$$n = 1$$

$$R$$

$$n = 3.1$$