1. The index of refraction is defined as the ratio of the speed of light in a vacuum to the speed of light in the material of interest.

$$
\begin{aligned}
& \mathrm{n}=\mathrm{c} / \mathrm{v} \\
& \mathrm{n}=\left(3 \times 10^{8} \mathrm{~m} / \mathrm{s}\right) /\left(2.2 \times 10^{8} \mathrm{~m} / \mathrm{s}\right) \\
& \mathrm{n}=1.36
\end{aligned}
$$

