## Assignment 1

1. Note the values of refractive indices for the following media from the App.

2. Calculate the critical angle for the two media.

3. Compare the values with the ones shown in the App.

Formula for critical angle : $(i_c) = \sin^{-1}(n_2/n_1)$

| Denser medium $n_1$ | Rarer medium $n_2$ | Refractive index | | Critical angle (Measured) | Critical angle (Calculated) |
|---|---|---|---|---|---|
| | | $n_1$ | $n_2$ | | |
| Diamond | water | 2.42 | 1.33 | 33.3 | 33.2 |
| Water | Air | 1.33 | 1.0003 | 48.8 | 48.7 |
| Crown glass N-K5 | Air | | | | |
| Flint glass LF5 | water | | | | |
| Rock salt | water | | | | |

## Assignment 2

1. Change the refractive index values of both media as given in Refraction of Light App.

2. Observe the formation of wavefront and give an explanation.