Virtual Clicker

https://pollev.com/dannycaballe980

A wave on a string starts in a very heavy string and travels towards a very light string. When the wave enters the light string,

A. most of the wave is reflected back; very little of the wave transmits through the light string
B. some of the wave is reflected back; some of the wave transmits through light string
C. very little of the wave is reflected back; most of the wave transmits through light string
D. ???

If $n_1 \approx n_2$, then what happens to R and T?

A. $R \to 1; T \to 0$
B. $R \to 0; T \to 1$
C. $R \to 0; T \to 0$
D. $R \to 1; T \to 1$

If $n_1 \gg n_2$ or $n_1 \ll n_2$, then what happens to R and T?

A. $R \to 1; T \to 0$

B. $R \to 0; T \to 1$

C. it depends!

When an EM wave travels from a media with a very high index of refraction to a very low index of refraction, which has more of the energy (intensity)?

A. The reflected wave in the high index material
B. The transmitted wave in the low index material
C. It depends

When an EM wave travels from a media with a very high index of refraction to a very low index of refraction, which wave has the higher amplitude?

A. The reflected wave in the high index material
B. The transmitted wave in the low index material
C. It depends

Claim: For a wave heading towards a boundary between two media at an oblique angle, $\omega_I = \omega_R = \omega_T$.

A. True

B. False

Claim: For a wave heading towards a boundary between two media at an oblique angle, at the boundary,

$$\mathbf{k}_I \cdot \mathbf{r} = \mathbf{k}_R \cdot \mathbf{r} \neq \mathbf{k}_T \cdot \mathbf{r}.$$

A. True

B. False