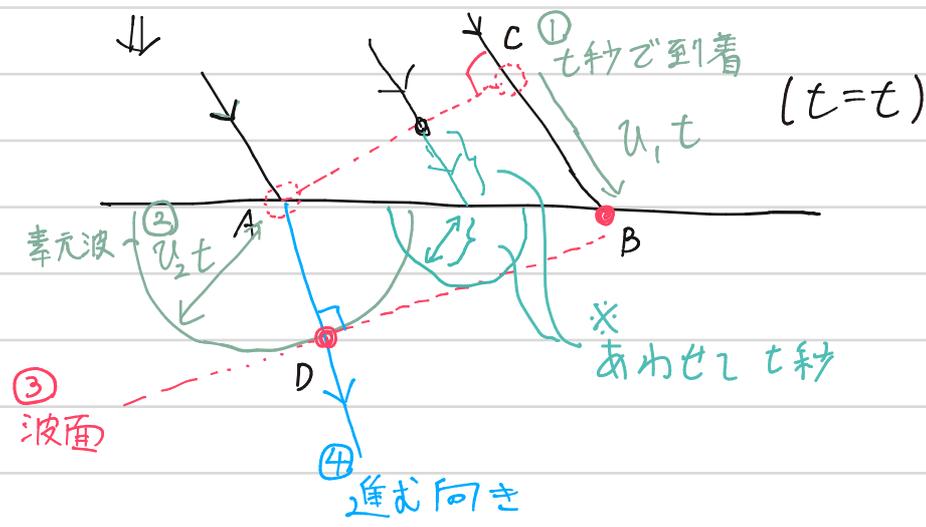
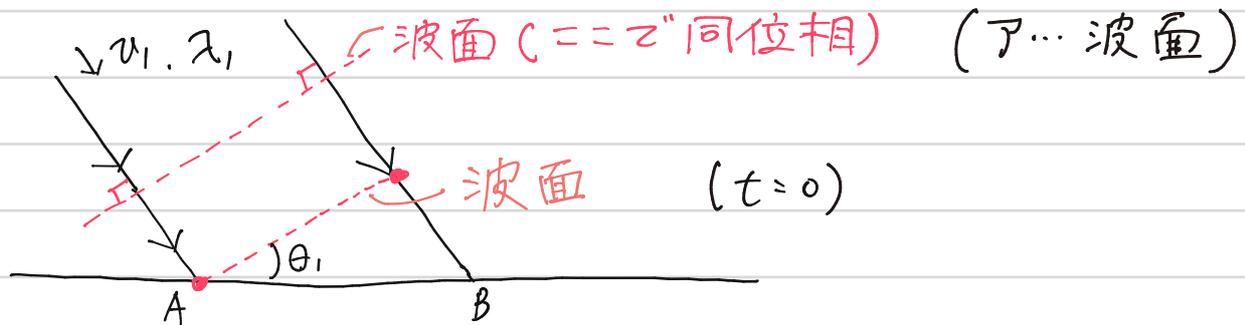
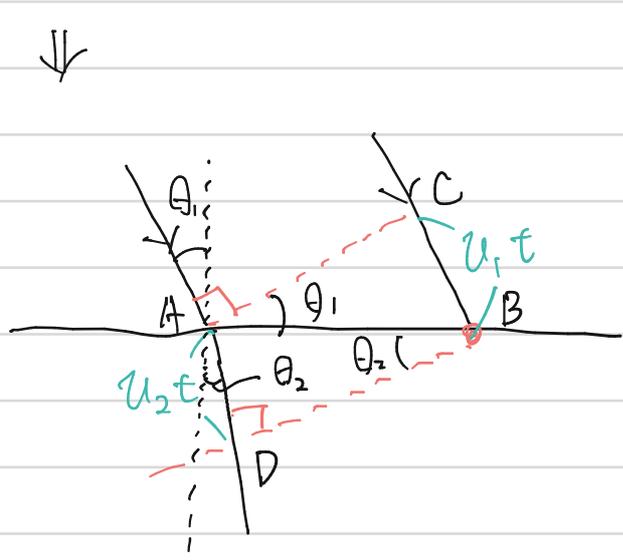


ポイント  
波面は波の進む向きと必ず90°



(イ)  
 $\overline{CB} = u_1 t$   
 $\overline{AD} = u_2 t$   
 よって  
 $\frac{\overline{CB}}{\overline{AD}} = \frac{u_1 t}{u_2 t}$   
 $\therefore \overline{AD} = \overline{CB} \times \frac{u_2}{u_1} \quad (1)$



(ウ)  
 $\sin \theta_1 = \frac{\overline{BC}}{\overline{AB}} = \frac{u_1 t}{\overline{AB}}$   
 $\sin \theta_2 = \frac{\overline{AD}}{\overline{AB}} = \frac{u_2 t}{\overline{AB}}$

$\Rightarrow \frac{\sin \theta_1}{\sin \theta_2} = \frac{\frac{u_1 t}{\overline{AB}}}{\frac{u_2 t}{\overline{AB}}} = \frac{u_1}{u_2} \quad (ウ)$

共通の辺 AB を使って  
関係づける

(エ)  
 $v = f \lambda$  より  
 $\frac{u_1}{u_2} = \frac{f \lambda_1}{f \lambda_2} = \frac{\lambda_1}{\lambda_2} \quad (エ)$