

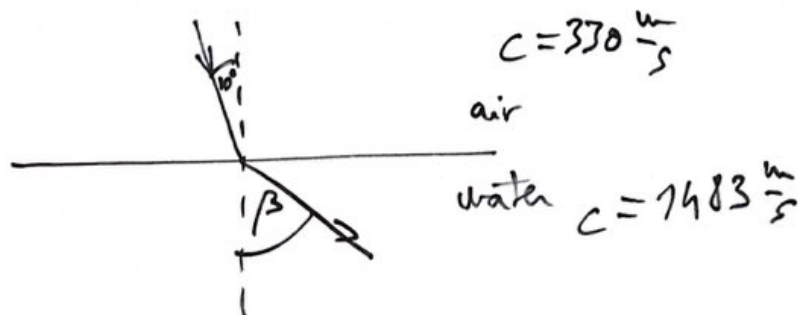
$$\frac{A_r}{2} \quad \cos\left(\frac{\Delta\phi}{2}\right) = \frac{A_r/2}{A}$$

$$A_r = 2A \cdot \cos\left(\frac{\Delta\phi}{2}\right)$$

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$$c = \frac{\lambda}{T} \rightarrow T = \frac{\lambda}{c} = \frac{6\text{m}}{7.5\text{m/s}} = \underline{\underline{0.8\text{s}}}$$

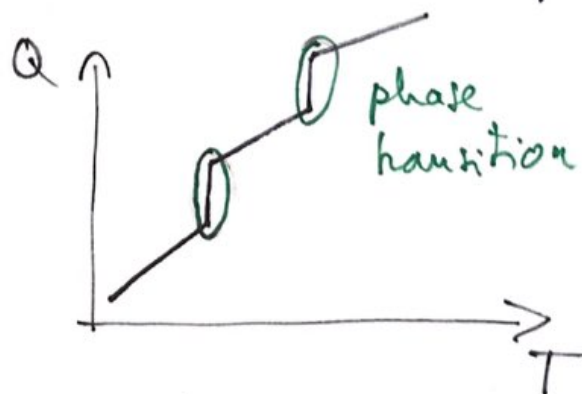
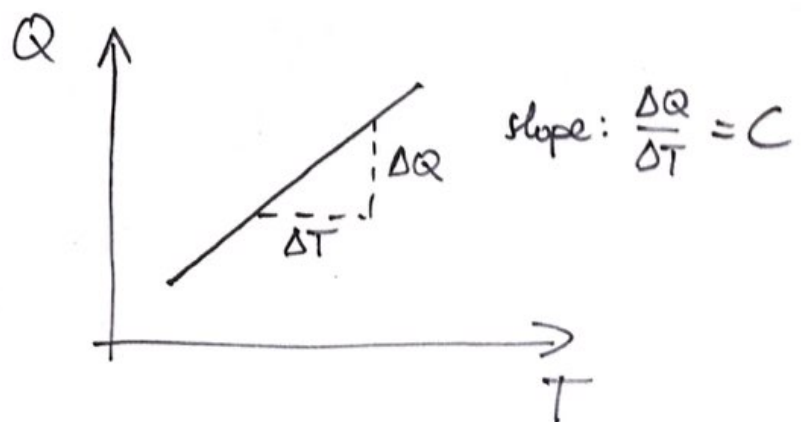
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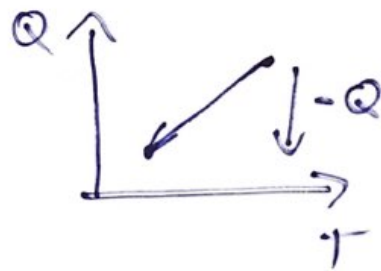
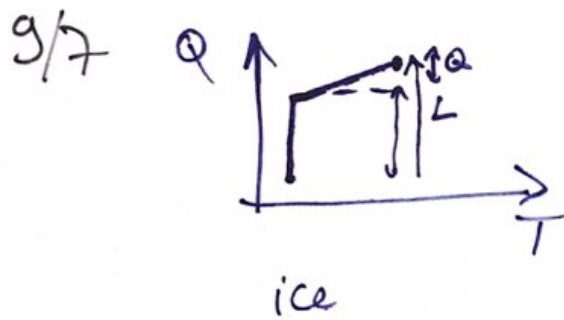


$$\frac{\sin 10^\circ}{\sin \beta} = \frac{330}{1483}$$

$$\sin \beta = \frac{1483}{330} \cdot \sin 10^\circ = 0.78$$

$$\beta = \sin^{-1}(0.78) \approx \underline{\underline{51.3^\circ}}$$





$$Q_{\text{abs}} = |Q_{\text{rel}}|$$

$$\underbrace{L \cdot m_{\text{ice}}}_{\downarrow} + m_{\text{ice}} \cdot c \cdot (T - 273) = m_w \cdot c \cdot (303 - T)$$

$$(334400 \cdot 0,02) + 0,02 \cdot 4180 \cdot (T - 273) = 0,2 \cdot 4180 \cdot (303 - T)$$

$$6688 + 83,6T - 22822,8 = 25330,8 - 836T$$

$$919,6T = 269442,8$$

$$T = \frac{269442,8}{919,6}$$

$$T = 293 \text{ K} = \underline{\underline{20^\circ \text{C}}}$$

9/12.

$$\frac{P_1}{T_1} = \frac{P_2}{T_2}$$

$$P_2 = P_1 \cdot \frac{T_2}{T_1} = 50 \text{ bar} \cdot \frac{(273+72)}{(273+12)} =$$

$$\underline{\underline{60.5 \text{ bar}}}$$