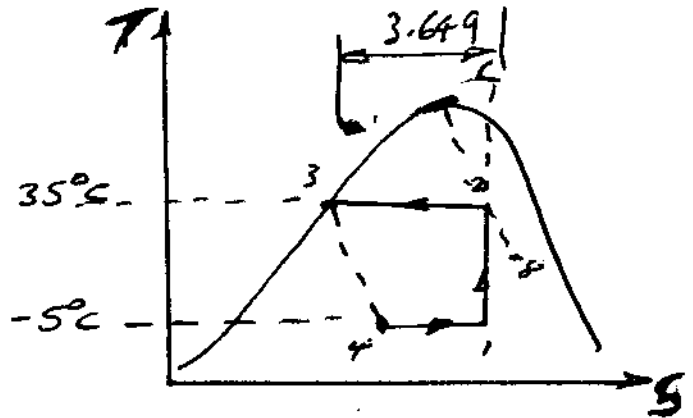
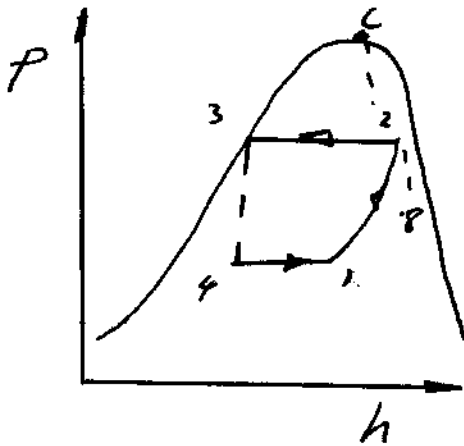


ϕ_1 2000



$$h_{fg} @ 35^\circ\text{C} = 1123.9 \text{ kJ/kg}$$
$$h_3 = h_f @ 35^\circ\text{C} = 347.4 \text{ kJ/kg}$$
$$h_2 = h_f + x h_{fg} = 347.4 + 0.8 \times 1123.9 = 1246.52 \text{ kJ/kg}$$

HEAT REJECTED AT CONDENSER

$$Q(\text{out}) = h_3 - h_4 = 899.12 \text{ kJ/kg}$$

THE SUBSTANCE APPEARS TO BE AMMONIA
(TABLES $h_{fg} = 1123.2 \text{ kJ/kg} @ 35^\circ\text{C}$)

$$h_4 = h_3$$

$$s = \frac{h_{fg}}{T} = \frac{1123.9}{273 + 35} = 3.649$$

$$s_3 - s_2 = 80\% \times 3.649 = 2.9192$$

THE EXAMINER SAYS IT REVOLVES
ABOUT SETTING h OR s TO
ZERO AT ANY POINT.

I CANNOT SEE HOW THIS HELPS