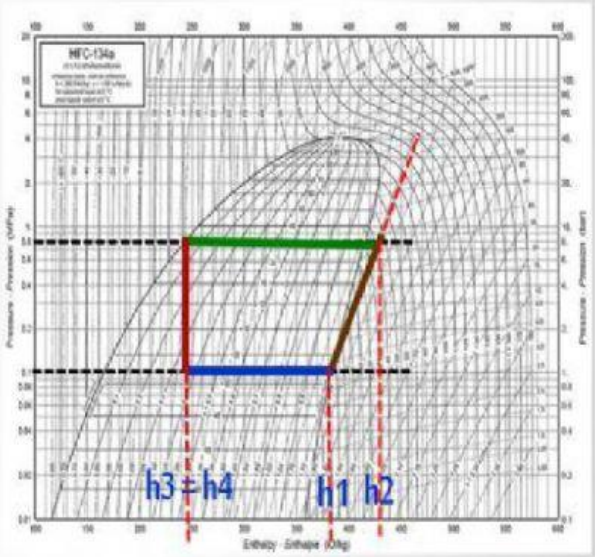
Solve the problems on the p-h chart

وزارة التربية والتعليم
Ministry of Education

Example 1 :

For a simple refrigeration cycle represented by p – h chart below if

$h_1 = 330$ kJ/kg $h_2 = 355$ kJ/kg And $h_3 = 225$ kJ/kg



Calculate the following:

1. Refrigeration Effect (R.E)
2. Work Done (W.D)
3. Coefficient of Performance (C.O.P)

Solution:

$R.E = h_1 - h_4$ $R.E =$ ____ – ____ = ____ kJ/kg

$W.D = h_2 - h_1$ $W.D =$ ____ – ____ = ____ kJ/kg

$C.O.P = RE / WD$ $C.O.P =$ ____ / ____ = ____