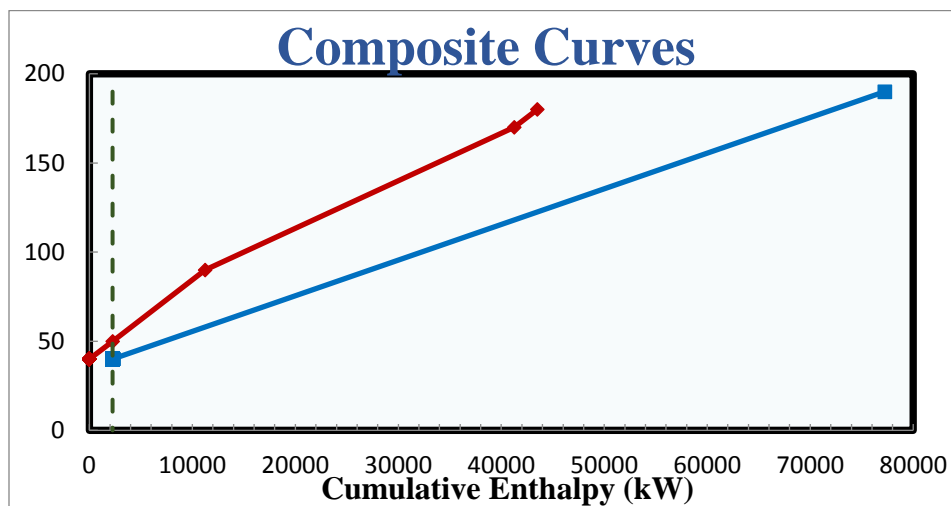


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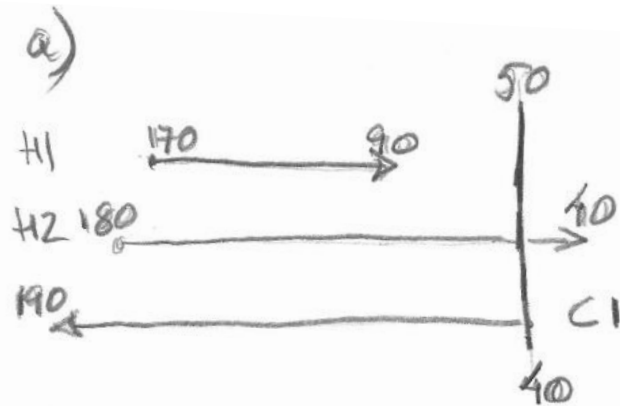
QUIZ 5-SOLUTION

Consider the following data (with $DT_{min}=10$) Minimum HU 33,750 kW, Minimum Cold Utility 2,250 kW, and a hot pinch at 50 C

H1	H2	C1
150.00	225.00	500
170.00	180.00	40
90.00	40.00	190



- Draw the (horizontal) streams diagram and locate the pinch (10%)
- What is the expected minimum number of exchangers above and below the pinch. (10%)
- Locate all pinch matches. (30%)
- Obtain the Heat exchanger network using the pinch design method. (45%)



b) Above Pinch $N_H + N_C + N_U - 1 = 2 + 1 + 1 - 1 = 3$
 Below Pinch $N_H + N_C + N_U - 1 = 1 + 0 + 1 - 1 = 1$

