Homework Problem H7.D

Given: Consider the truss shown below with the loading on joints D, K, S and U.

Find: For this problem:
a) Identify all zero-force members in the truss.
b) Determine the external reactions acting on the truss at supports A and B.
c) Determine the load carried by members RS and DS. Identify each member as either being in tension, in compression or carrying zero load.

For this problem, use the following parameters: $h = 1.2$ m, $b = 1.6$ m, $F = 12$ ksi, $P = 36$ ksi and $Q = 24$ ksi.