1 Fundamentals: Structural analysis

1.1 Problems

Problem 1.1-1.5

For the planar mechanisms shown in Figs. P1.1-P1.5 determine the mobility table, the structural diagram, the contour diagram, the independent contours, the number of DOF, the dyads, and the type of the dyads.

Figure P1.1: Problem P1.1
Figure P1.2: Problem P1.2

Figure P1.3: Problem P1.3
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Figure P1.4: Problem P1.4

Figure P1.5: Problem P1.5
Problem 1.6

Represent the structural diagram and find the dyads for the mechanism in Fig. P1.6 if the driver is the link $AB$. 

Figure P1.6: Problem P1.6
Problem 1.7
Find the number of degrees of freedom of the mechanism shown in Fig. P1.7.

Figure P1.7: Problem P1.7
Problem 1.8 and 1.9

Represent the structural diagrams and find the dyads for the mechanisms in Figs. P1.8 and P1.9 if the driver is link 5.
Problem 1.10
Find the number of degrees of freedom of the mechanism represented in Fig. P1.10.

Figure P1.10: Problem P1.10