Problem 5:
(a) the equivalent wrench is (N;Nm):
{1.0000, -4.0000, -0.0000; -10.0000, 5.0000, -30.0000} = {1.0000, -4.0000, -0.0000; -8.2353, -2.0588, -30.0000} + {0; -1.7647, 7.0588, 0.0000}

(b) the magnitude of the force along the wrench is: 4.1231 N
line of action of the wrench is: {0.2425, -0.9701, -0.0000; -1.9974, -0.4993, -7.2761}
the pitch of the wrench is: -1.7647 m

Problem 6:
(a) the coordinates of the point of intersection of the mutually perpendicular line with the first screw is:
(3.5355, 12.0000, 6.0000)
(b) the coordinates of the point of intersection of the mutually perpendicular line with the second screw is:
(3.5355, -11.1421, -17.1421)
(c) the Plücker coordinates of the line that is mutually perpendicular to the lines of action of the two screws is:
{-0.0000, 0.7071, 0.7071; 4.2426, -2.5000, 2.5000}
(d) the first screw in xyz coordinate system is:
{1.0000, 0.0000, 0.0000; 3.0000, -0.0000, 0.0000}
the second screw in xyz coordinate system is:
{0.0000, 1.0000, 0.0000; 32.7279, -24.7487, -0.0000}
(e) 1-5 parts
(i) the minimum and maximum pitch values for the cylindroid are: -32.3284 m and 10.5797 m
(ii) with minimum pitch resultant, the ratio f1/f2 is: -0.4632
(iii) with maximum pitch resultant, the ratio f1/f2 is: 2.1589
(iv) with length of the cylindroid is: 42.9081 m
(v) coordinates of the center point of the cylindroid in the original XYZ coordinate system is:
(3.5355, 0.4289, -5.5711)
coordinates of the center point of the cylindroid in the new xyz coordinate system is:
(-0.0000, 0.0000, -16.3640)