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Problem 1:
(a) velocity of the point in body 1 that is at this instant coincident with the origin of the body 0 coordinate system is (m/s):
    (6.7500, 9.5000, -4.5000)
    the coordinates of the instantaneous twist is:
    2.5495{0.7845, 0.1961, -0.5883; -0.3696, 2.9719, 0.4978} = {2.0000, 0.5000, -1.5000; -0.9423, 7.5769, 1.2692}
(b) the pitch of the twist is: 3.8462 m
(c) the Plücker coordinates of the line of action of the twist is:
    {0.7845, 0.1961, -0.5883; -0.3696, 2.9719, 0.4978}
(d) the coordinates of the point on the line of action that is closest to the origin of the body 0 coordinate system is (m):
    (1.8462, -0.1731, 2.4038)

Problem 2:
    the coordinates of the instantaneous twist is:
    {1.1160, 2.0980, 2.7527; 7.4620, -1.1197, 3.4629}

Problem 3:
    angular velocities for each of the joints in order that the end effector moves as desired at this instant are (1-6,in/s):
    [0.0505, -0.1813, 0.0477, -0.0221, -0.1302, 0.2982]
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