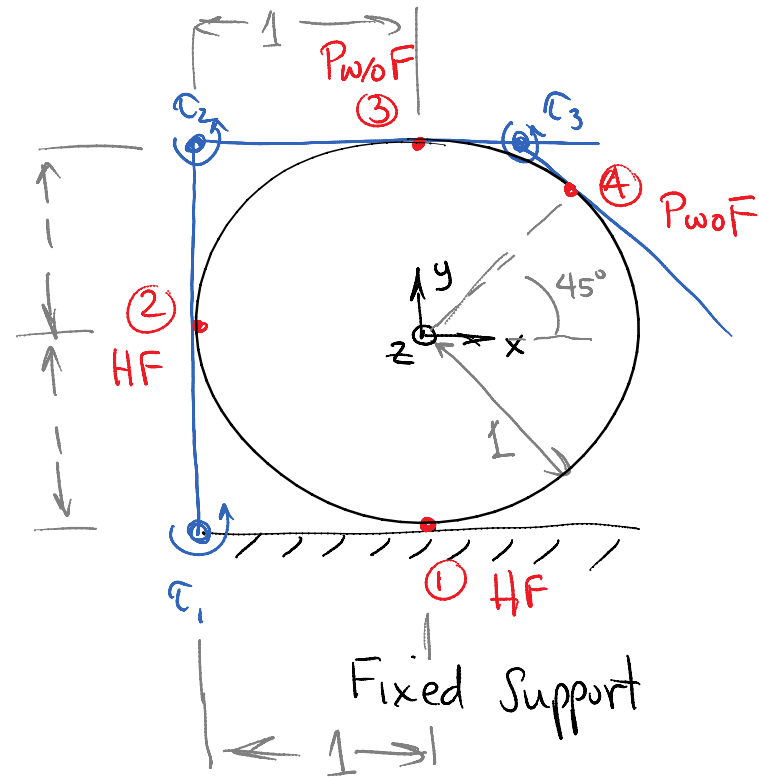


A. Construct  $G$  &  $J$  for the 3D grasp of a sphere shown on the right.



B. Give a basis for all 4 subspaces of  $G$  &  $J$  and interpret them physically.

C. Does this grasp have first order form closure?

D. At frictional contacts the friction coefficient  $\mu$  is 1. Does this grasp have frictional form closure?