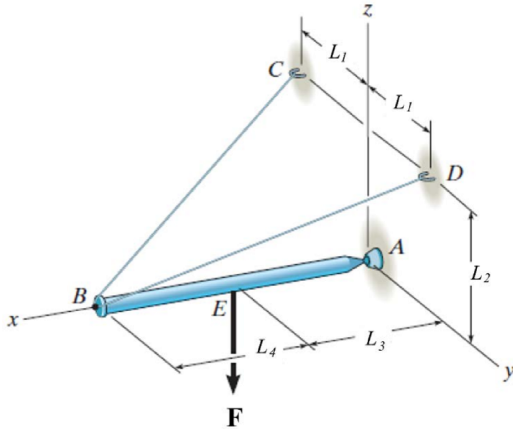A rod that holds a sign of weight **F** is connected with a ball-and-socket joint at A and with two cables at B. The two cables are attaches to the wall at points C and D, respectively.

If

$F = 500$ N, $L_1 = 1$ m, $L_2 = 2$ m, $L_3 = 2$ m, and $L_4 = 2.2$ m

a) Determine the components of reaction at point A.

b) Determine the tension of the cables.

Instructions: Two submissions are required.

1) At the end of the tutorial session, you will hand out a paper copy of your solution to the Teaching Assistant. Make sure that you have a second copy of your solution, so you can complete the final draft. Do not forget to write your names and student numbers in your submission. A student who is absent from the tutorial will not receive any credit for it. A student can join the session remotely (e.g., zoom, WhatsApp, etc.), but you as a team must arrange the communication and let the Teaching Assistant know that a student is working remotely with the team.

2) Before the beginning of the next tutorial, this could be anytime during the week, upload a pdf file of your complete solution. Make sure you show all the steps necessary to solve this problem. Upload the pdf file under **Tutorial 5**. Include your names and student numbers. Only one submission per team.