The objective of this tutorial is to explore homogenous transformations. The MATLAB robotics toolbox developed by Peter Corke might be a useful aid.

Reading
Please read/review chapter 7 of Robotics, Vision and Control. (http://goo.gl/T3DJ0)

Review
Useful commands:
Transl, trotx, troty, trotz, rotx, roty, rotz, tr2eul, DHFactor

Familiarise yourself with the link class

Questions
1. For the robot shown in the following figure, find the table of DH parameters according to “Standard” DH conventions.
   (note: you are allowed to move the initial frame to fit convention(s))

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1 http://petercorke.com/Robotics_Toolbox.html
a.) Determine the joint angles of the two-link planar arm.

b.) If $a_1 = 2$ and $a_2 = 3$ what are the joint angles corresponding to an end effector position of $(x, y) = (1, 1)$. 

Figure 1: Two-link Planar Robot