CS175 - Assignment 2
Playing with Frames (on paper)

Due: Monday, February 24 2020, 11:59pm

Do exercises 4.1, 4.2, 4.3, and 4.4 from the book.

Your written submission can be in txt, doc(x), odt, or pdf format. Submit using Canvas. For problems requiring a figure, you need to submit the figure somehow (embedded in the doc/odt/pdf, or as an additional image file).

Notes:

- **4.1:** Regarding "definitions of section 4.2" all you need to know is that R is a 45-degree rotation counter clockwise, and T is a positive translation along the first axis.

  You should have images interpreting the transformation left-to-right and images interpreting the transformation right-to-left.

- **4.2:** Note that the transformation specified here may be different from the one shown in lecture.

- **4.3:** You don't need to write out what is in the rotation matrix. You can just write R_θ.

- **4.4:** This is a bit tricky. First of all, the orange point is not necessarily along the first black axis. Second of all, I do want not to see d or ϕ in the answer. All you need to know is that both thin black lines have the same length (d), and make the same angles (ϕ) with the appropriate frames. This should tell you something important about "how to tranform" from the black to the orange frame.