

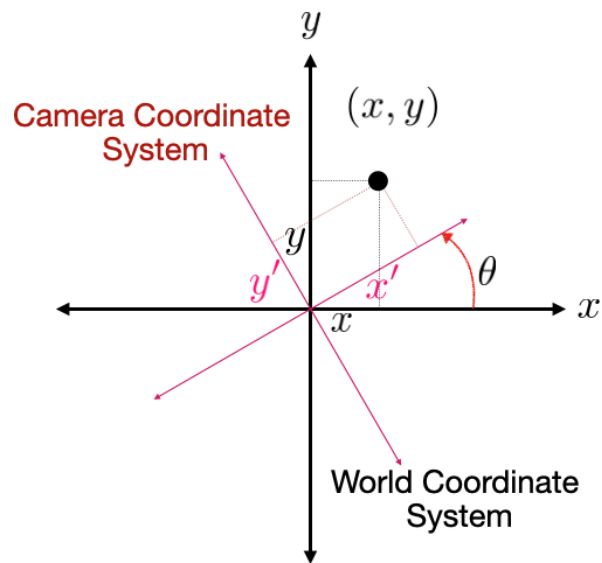
Exercise

Please hand in this paper to the instructor before the end of the lecture.

Name: _____

Student number: _____ Date: _____

Q. Say a point (x, y) in the world-coordinate-system is mapped to point (x', y') in the camera-coordinate-system. Furthermore, we know that $(x, y) \neq (0, 0)$ and that the camera sits at the origin of the world-coordinate-system.



Estimate the rotation angle θ of the camera. Recall that the 2D rotation matrix is

$$R(\theta) = \begin{bmatrix} \cos \theta & -\sin \theta \\ \sin \theta & \cos \theta \end{bmatrix}.$$