

# Computational Photography (CSCI 3240U) — In-class Exercise

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

Lastname (PRINT): \_\_\_\_\_ Firstname: \_\_\_\_\_

Student number: \_\_\_\_\_ Date: \_\_\_\_\_

**Q.** Consider a rectangular object that is 10 m tall and 5 m wide. This object sits at a distance of 50 meters from a pinhole camera. The focal length of this camera is 5 cm. What is the area of the image of this object. To simplify the calculations, we assume that the object sits facing the camera.

**Q.** Consider an ideal pinhole camera. Now assume that the size of the pinhole is small, as small as can be without exhibiting into diffraction effects. This pinhole is used to image a distant object. Under what conditions do you think the image of this object will be blurry?