

## 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 digital photographic sensor photosite, which produces 3 electrons for 5 photons and 9 electrons for 10 photons. Write down the quantum efficiency for this photosite. The photosite undersaturates if the number of photons are less than 5. Similarly, it oversaturates if the number of photons are more than 9. We do not worry about under- or over-saturation.

**Q.** What is under- or over-saturations in the context of photosensors? Answer in no more than two to three sentences.