CSC 3260 Specification of Written Assignment 1st

If you have any question about this written assignment, please email to gychen@cse.cuhk.edu.hk without any hesitation!

Announcement:

Since there is a tutorial before the deadline, 16:00pm, we will slightly alter our due time. All solutions need to be submitted to the collection box before 15:00pm, 19th Oct., 2015.

Revision of Typos in the assignment:

1. The part (ii) of the question 4:
   Change *"Given two points (10,5) and (5,9),…"* to *"Given two points (10,5,4) and (5,9,2),…"*.

2. Since some students feel confused about the distance definition used in question 5th, we will provide more detailed explanation below.

- Distance between Point $x \in \mathbb{R}^d$ and Point $y \in \mathbb{R}^d$:

$$d = (x-y)^T(x-y)$$
$$= \sum_{i=1}^{d}(x_i - y_i)^2.$$

- Distance between Point x and Line l:

$$d = \min_{y \in l}(x-y)^T(x-y),$$

where y locates in the line l.

- Distance between Point x and Line Segment s:

$$d = \min_{y \in s}(x-y)^T(x-y),$$

where y locates in the line segment s.

- Distance between Point x and Triangle t

$$d = \min_{y \in t}(x-y)^T(x-y),$$

where y locates on the side of triangle or inside triangle.