CSCI 4250/5250 Homework 6 **Name_____**
Due beginning of class, Monday, Oct 3rd
(60 points)

1. (3 pts) Given two vectors **a**=(2, 5, -1) and **b**=(3, 6, 2), compute **a x b**.

2. (3 pts) Show in parametric form the line that goes through points A=(4, 9) and B=(0, 5).

3. (4 pts) Show in point normal form the line that goes through points A=(4, 9) and B=(0, 5).

4. (5 pts) Show in parametric form the perpendicular bisector of the line segment having end points A=(4, 9) and B=(0, 5).

5. (10 pts) For light ray a=(2, 3) and surface normal n=(-2, 1), find the direction of the reflection of the ray.

6. (10 pts) Find point C and some vectors **a** and **b** that create a patch having the four corners (-4, 2, 1), (1, 7, 4), (-2, -2, 2), and (3, 3, 5) (textbook pg 170/ex 4.5.9).

7. (25 pts) Given two polylines A and B defined in the next page, compute and draw the results of function calls Tween(A, B, 0.3) and Tween(A, B, 0.6).