Quiz One

No notes. No calculators.
Simplify your answers. Show your work. Please put a box around [YOUR FINAL ANSWER]. There are 15 points on this quiz.

Hui and Santosh are walking across campus. At time $t = 0$ they are together. At that time, Hui walks north at 8 feet per second, and Santosh walks east at 6 feet per second. There is a water sprinkler 30 feet east and 12 feet north of them. This sprays a circle of water 30 feet across (in diameter).

1. (3 points) Draw a picture of the situation and impose a coordinate system.

2. (4 points) Find the distance between Hui and Santosh in feet per second.
3 (5 points)  Where does Santosh first hit the water from the sprinkler?

4 (3 points)  When (at what time) does Santosh first hit the water from the sprinkler?

5 Bonus Question (1 point)  What are the names of your instructor and teaching assistant? In what building is the Math Study Center (MSC) located?

Instructor: ____________________________  TA: ____________________________
MSC is in: ____________________________