

**Quiz One**

		Hui	Santosh
Section	10:30	BA	BC
(circle one)	11:30	BB	BD

**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: \_\_\_\_\_