

Calculus III - Quiz 2 - Spring 2015

January 30, 2015

Due date: Tuesday February 3rd.

Name: _____

In the following questions the plane π is given by the equation

$$2x - y = 2,$$

and the line r is the intersection of the planes

$$\begin{cases} x = 1 \\ y - 2z = 2 \end{cases}$$

1. (3 points) What is the relative position between π and r ? That is: do they intersect? Are they parallel? Explain your methods.
2. (3 points) Find the line that goes through $A(-2, 1, 0)$, intersects r and is parallel to π .
3. (4 points) Find the plane that is perpendicular to π and contains r .

Note: you may use a many sheets of paper as you wish. But please staple them.