Math2210 Quiz 3 (Sections 11.3, 11.4) Summer, 2008 Dylan Zwick

Name _____ Date _____

Instructions: Please show all of your work as partial credit will be given where appropriate, **and** there may be no credit given for problems where there is no work shown. All answers should be completely simplified, unless otherwise stated.

1. If $\boldsymbol{a}=\langle 3,3,1\rangle$, $\boldsymbol{b}=\langle -2,-1,0\rangle$ and $\boldsymbol{c}=\langle -2,-3,-1\rangle$,

   (a) find $\boldsymbol{a}\times(\boldsymbol{b}+\boldsymbol{c})$.

   $\boldsymbol{a}\times(\boldsymbol{b}+\boldsymbol{c})$ = _____

   (b) find $\boldsymbol{a}\cdot(\boldsymbol{b}\times\boldsymbol{c})$

   $\boldsymbol{a}\cdot(\boldsymbol{b}\times\boldsymbol{c})$ = _____

2. Find the equation of the plane passing through P(4, -2, 1) and perpendicular to $\boldsymbol{n}=2\boldsymbol{i}-5\boldsymbol{j}+3\boldsymbol{k}$.

Plane: _____

3. Find the distance between the parallel planes $5x - 3y - 2z = 5$ and $-5x + 3y + 2z = 7$.

distance: _____