NAME:_____

PERM:_____

Show your work. Partial points might be awarded. No calculators. You DO need to simplify your answers.

(1) Plane α contains points $(1, 3, 5), (0, 1, 0), (-2, 4, 1)$. Find the equation of α. (Please simplify the result as much as possible.)

(2) Let β be a plane that has equation $x - y + 3z = 10$. What's the angle between α and β?

(Hint: the angle between two planes is exactly the angle between the two normal vectors of the planes. You can use inverse trigonometric functions to express your answer.)