NAME _____

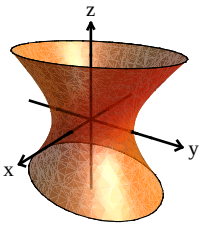
Math 210 Quiz 2 / Wednesday, September 10, 2008 / David Dumas

(1) Let P be the plane in $\mathbf{R}^3$ that contains the points $(1,0,0)$, $(1,1,0)$, and $(0,0,2)$. Find the equation for P in the form $ax + by + cz + d = 0$, where a, b, c, d are real numbers.

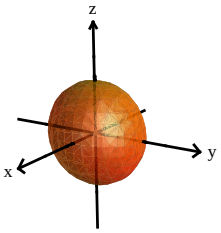
(2) Match each picture to the corresponding equation *and explain your reasoning.*

(a) $2x^2 + y^2 = 1 - z^2$ (b) $2x^2 + y^2 = 1 + z^2$ (c) $2x^2 + y^2 = 1$

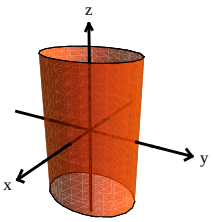
(I)



(II)



(III)



Picture I corresponds to equation _____.
Reason:

Picture II corresponds to equation _____.
Reason:

Picture III corresponds to equation _____.
Reason: