Math 1800

Quiz 4

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1. Below is a list of vectors and a list of properties. Match the two sets in such a way that each entry in left column matches a different entry in right column.

A. $\langle 3, -2, 8 \rangle$	I. is parallel to the straight line $\frac{x-1}{2} = y - 3 = z$
B. $\langle 4, 2, 2 \rangle$	II. is perpendicular to the plane $z - 2y - x = 3$
C. $\langle 3, 1, -1 \rangle$	III. is perpendicular to both $\langle 2, 3, 0 \rangle$ and $\langle -2, 5, 2 \rangle$
D. $\langle 1, 2, -1 \rangle$	IV. lies in the plane $x - y + 2z = 3$

2. Find the point(s) on the surface $xy + yz + zx + 4 = 0$ where the tangent plane is parallel to the XY-plane.