

Name: _____

- No electronic devices are allowed. You must show your work to obtain credit.
 - You may use the back if necessary. Please indicate clearly if you do so.
1. (5 points) Find the intersection point of the line passing through the points $(1, 1, 0)$ and $(2, 3, -1)$ with the plane given by the equation $2x + y - z = 7$.

2. (5 points) Find the volume of the parallelepiped determined by the vectors

$$\mathbf{a} = \langle 1, 2, 1 \rangle, \mathbf{b} = \mathbf{j} + \mathbf{k}, \mathbf{c} = \langle 4, 0, 2 \rangle.$$