Line/plane intersections and angles

Name: _____ Date: _____

6 questions | 12 marks

1. Intersect $t(1, 1, 1)$ with $x + y + z = 6$. [2 marks]

2. Does $(0, 0, 1) + t(1, 0, 0)$ meet $z = 0$? [2 marks]

3. Find the smaller angle between $x = 0$ and $x + y = 0$. [2 marks]

4. Find the smaller angle of direction $(0, 0, 1)$ with $z = 2$. [2 marks]

5. Find the intersection line of $x + y = 1$ and $z = 2$. [2 marks]

6. Find k so $(0, 0, k) + t(1, -1, 0)$ lies in $x + y + z = 3$. [2 marks]