MATH 2415 Test 1 Name: 1. Given points A = (1,0,0), B = (2,5,0), and C = (3,2,1), find the distance from A to the line through B and C.

**2.** Given  $\vec{u} = \langle 0, 1, 1 \rangle$  and  $\vec{v} = \langle 2, -2, 0 \rangle$ , sketch a vector addition triangle including three arrows:  $\vec{u}$ ,  $\vec{v}$ , and  $\vec{v} - \vec{u}$ .