

4. **Ray-triangle intersection:** Say a triangle lies on the floor, with coordinates $\vec{A} = (0, -2, -5)$, $\vec{B} = (-3, -2, -4)$, and $\vec{C} = (1, -2, -2)$. Draw a “top” view picture of the floor, labeling \vec{A} , \vec{B} , \vec{C} , and \vec{P} . Does this ray intersect the triangle?

5. **Barycentric coordinates:** Determine the Barycentric coordinates (α, β, γ) of \vec{P} in terms of \vec{A} , \vec{B} , and \vec{C} . Does this confirm your result from (4)?