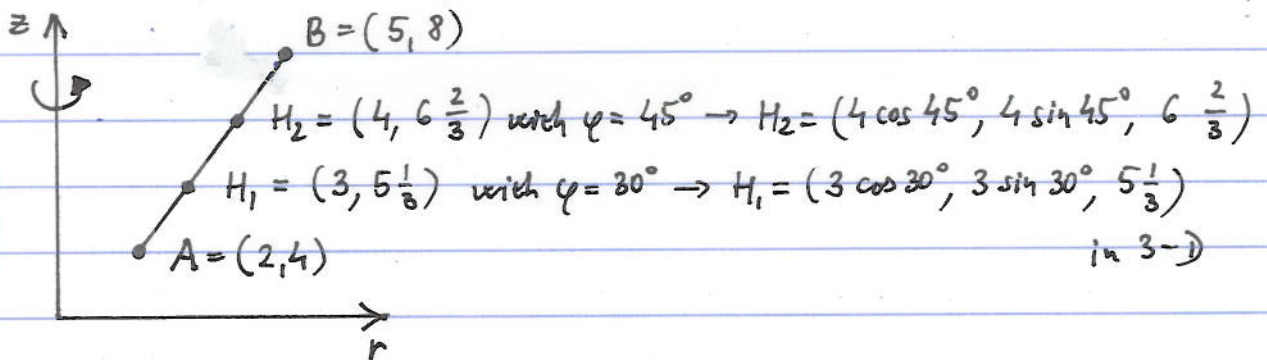


test_Cone.cpp, cone_intercepts.cpp

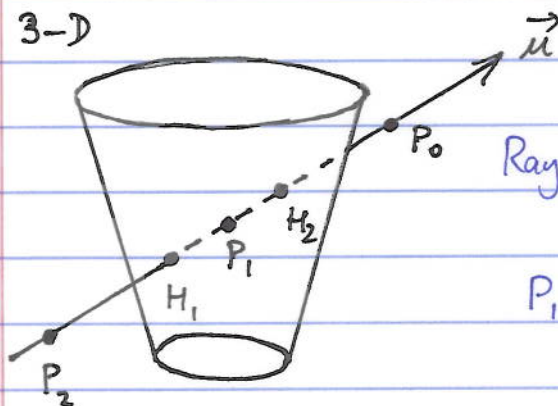
2-D RZ



$$H_1 = (3 \frac{\sqrt{3}}{2}, \frac{3}{2}, 5\frac{1}{3}) \text{ and } H_2 = (\frac{4}{\sqrt{2}}, \frac{4}{\sqrt{2}}, 6\frac{2}{3})$$

Ray direction vector $\vec{u} = H_2 - H_1$; vary starting point P to obtain the various intercepts H_1 , or H_2 or none.

3-D



Ray starting point

$$P_0 = H_2 + \vec{u}$$

$$P_1 = \text{midpoint } H_1 - H_2$$

$$P_2 = H_1 - \vec{u}$$

Test name

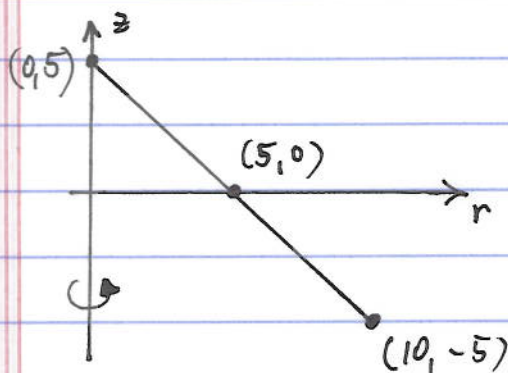
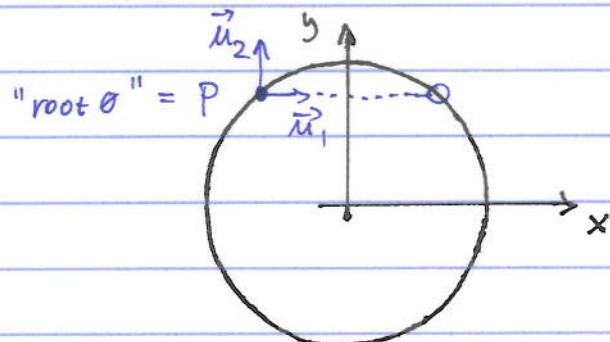
"two-negative"

"one-positive"

"two-positive"

cone0.cpp

2-D RZ

Cone intersection with the $z=0$ plane:

see also sphere0.cpp

\vec{u}_1 : skip root 0; \vec{u}_2 : keep root 0; Test names: "pythagorean"