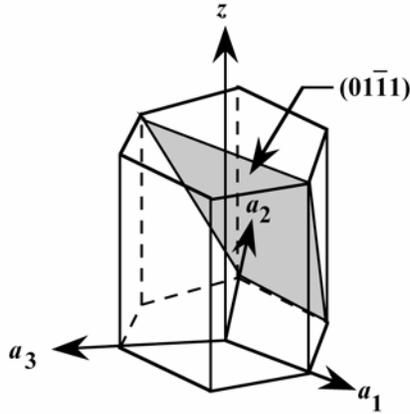


3.50 This problem asks that we draw $(01\bar{1}1)$ and $(2\bar{1}\bar{1}0)$ planes within hexagonal unit cells.

For $(01\bar{1}1)$ the reciprocals of h , k , i , and l are, respectively, ∞ , 1, -1 , and 1; thus, this plane is parallel to the a_1 axis, and intersects the a_2 axis at a , the a_3 axis at $-a$, and the z -axis at c . The plane having these intersections is shown in the figure below



For $(2\bar{1}\bar{1}0)$ the reciprocals of h , k , i , and l are, respectively, $1/2$, -1 , -1 , and ∞ ; thus, this plane is parallel to the c axis, and intersects the a_1 axis at $a/2$, the a_2 axis at $-a$, and the a_3 axis at $-a$. The plane having these intersections is shown in the figure below.

