## SOLID OR SPATIAL GEOMETRY.

10. PO meets the plane U (Fig. of Art. 12) at an angle of  $30^{\circ}$ ; and PN is normal to U. OA is a planar line making the angle  $POA = 60^{\circ}$ . Show that  $\cos AON = \frac{1}{4}\sqrt{3}$ .

11. PO meets U at an angle  $\alpha$ , and ON is the projection of OP on U. OA is a planar line making the angle  $POA = \beta$ . Show that  $\cos AON = \frac{\cos \beta}{\cos \alpha}$ .

12. Through the point, where a given line meets a plane, to draw a planar line to make a given angle with the given line.

Examine the limits of possibility.

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