The Hipotenusal found will be less then a Quadrant, if the given side be less then a Quadrant, and the angle given adjacent thereto Acute; As also if the given side be greater then a Quadrant, and the given angle adjacent thereto be Obtuse.

But it will be greater then a Quadrant, if the given side be greater then a Quadrant, and the given Angle adjacent thereto Acute; As also when the given side is less then a Quadrant, and the given Angle Obtuse.

14. *To find the Hipotennsal*

Given a Side, and an angle Opposite thereto.

If it be fore-known whether the Hipotenusal be greater or less then a Quadrant, or whether the other angle not given be Acute or Obtuse; Or lastly, whether the other side not given, be greater or less then a Quadrant.

As the sine of the given angle : To Radius :: So sine of the given side : To the sine of the Hipotennsal

As the Radius : To Cosecant of angle given :: So sine of the given side : To the sine of the Hopotennsal

As Radius : To Cosecant given side :: So sine of the given angle : To Cosecant of the Hipotenusal

As the sine of the given side : To Radius :: So sine of the given angle : To Cosecant of the Hipotenusal

As Cosecant of given side : To Radius :: So Cosecant of the given angle : To sine of the Hipotennsal

As Cosecant of the given angle : To Radius :: So the Cosecant of the given side : To Cosecant of the Hipotennsal

The Hipotenusal found will be less then a Quadrant, if both the Oblique Angles be Acute or Obtuse, or if both the sides be greater or less then Quadrants.

It will also be greater then a Quadrant, if one of the Oblique Angles be Acute, and the other Obtuse, or if one of the sides be less, and the other greater then a Quadrant.

As

15. *To find the Hipotenusal,*

Given both the sides, distinguished by the names of first and secoud.

As Radius : To Cosine 1st side :: So Cosine 2d side : To Cosine of the Hipotenusal

As Radius : To Secant 1st side :: So Secant 2d side : To Secant of the Hipotenusal

As Secant 1st side : To Radius :: So Cosine of the 2d side : To Cosine Hipotennsal

As Secant 2d side : To Radius :: So Cosine 1st side. To Cosine of the Hipotennsal

As Cosine 1st side : To Radius :: So Secant 2d side : To Secant of the Hipotennsal

As Cosine 2d side : To Radius :: So Secant 1 side : To the Secant of the Hipotenusal

The Hipotenusal found will be less then a Quadrant, if both the Sides are less or greater; But otherwise, it will be greater, if one be less and the other greater.

16. *To find the Hipotennsal.*

Given both the Oblique Angles, distinguisht by the names of the first and second.

As Radius : To Cotangent 1st angle :: So Cotangent 2d angle : To Cosine of the Hipot:

As the tangent 1st angle : To Radius :: So Covangent 2d angle : To Cosine of Hipoten:

As tangent of 2d angle : To Radius :: So Cotangent 1st angle : To Cosine Hipotenusal

As the Radius : To tangent 2d angle :: So tangent 1st angle : To Secan of the Hipot:

As Cotangent 2d angle : To Radius : So tangent 1st angle : To Secano of the Hipotennsl;

As the Cotangent 1st angle : To Radius :: So Tangent 2d angle : To Secant Hipotenusl:

The