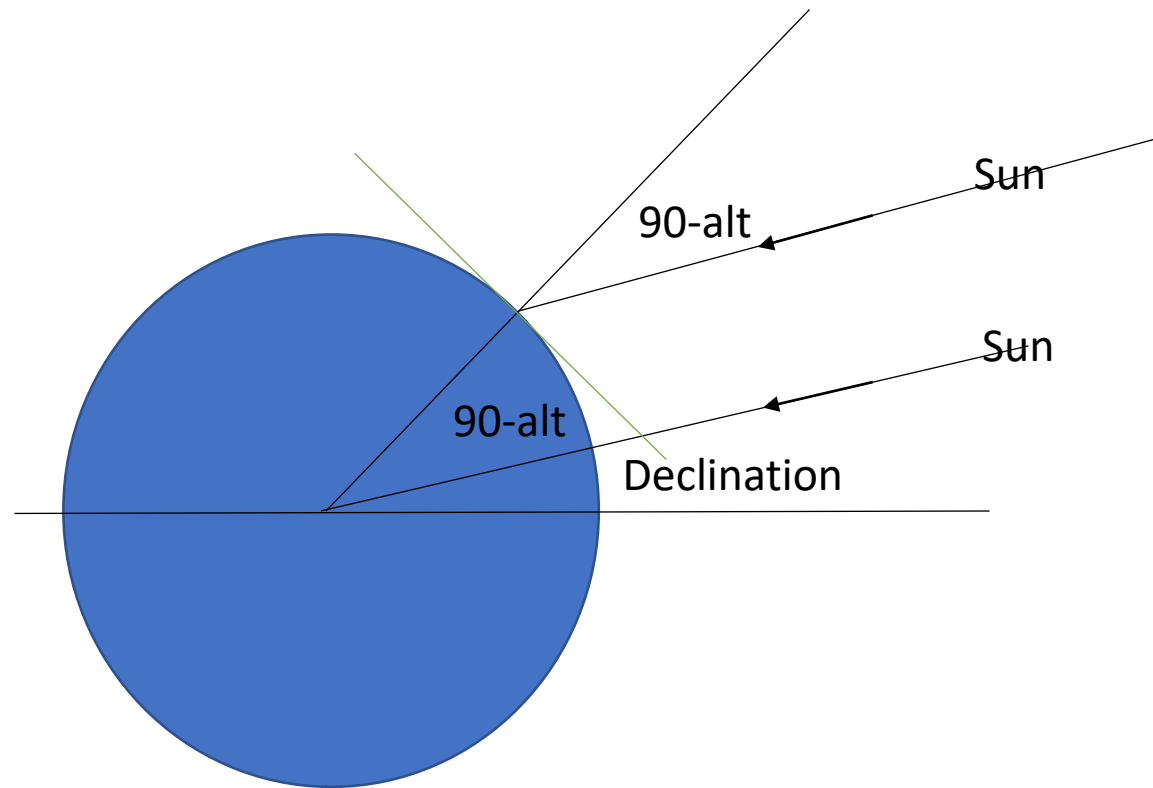


Approximately 53 Degrees



$$\text{Latitude} = \text{declination} + 90 - \text{alt}$$

At noon at midsummer

$$\text{Latitude} = 23.5 + 90 - 53 = 60.5$$

I.e. below 60.5 latitude at noon in midsummer, the shadow will not reach as far as the numbers.