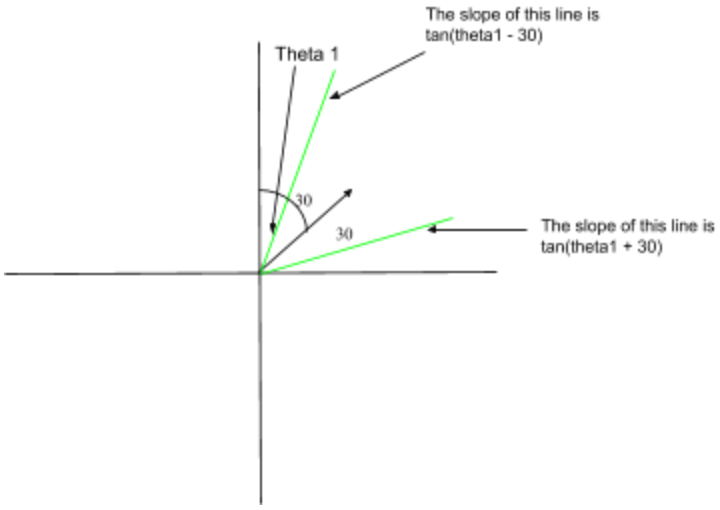
1. The origin is the location of the person. 0 degrees is facing North. Cone is 30 degrees to each side.



2. Determine whether the desired location is in the cone by calculating slope from the user's location to the place.
    a. 1st quadrant: The reading of the compass is between 0-90 degrees. Latitude of location - Latitude of user >= 0 and Longitude of location - Longitude of user >=0.
    b. 4th quadrant: compass reading between 90-180. Latitude of location -Latitude of user <= 0 and Longitude of location - Longitude of user >= 0.
    c. 3rd quadrant: compass reading between 180-270. Latitude of location - Latitude of user <= 0 and Longitude of location - Longitude of user <=0.
    d. 2nd quadrant: compass reading between 270-360. Latitude of location - Latitude of user >= 0 and Longitude of location - Longitude of user <= 0.
3. The two slopes of the cone are tan(theta1-30) and tan(theta1+30).
4. Calculate slope between the origin (the user's location) and a pinpointed desired location. If the slope is between the two slopes of the cone and the latitude and longitude requirements are met, then the marker is shown.

```
specialMarkers = Arraylist of the locations within the cone
uLat = user's latitude
uLong = user's longitude //use getLastKnownLocation for Lat and Long → myLocation
x = User's compass direction in degrees //azimuth
sweepAngle = 30
slope1 = tan(x-sweepAngle)
slope2 = tan(x+sweepAngle)
For location a in the list: // a is the point of interest
        slope3 = (aLat - uLat)/(aLong - uLong)
        If (slope3 >= slope2 && slope3 <= slope1)
                If (x >=0 && x<90 &&  aLat - uLat >= 0 && aLong - uLong >=0)
                        Add a to specialMarkers
                Else if (x>=90 && x<180 && aLat -uLat <= 0 && aLong - uLong >= 0)
                        Add a to specialMarkers
                Else if (x>=180 && x<270 && aLat - uLat <= 0 && aLong - uLong<=0)
                        Add a to specialMarkers
                Else if (x>=270 && x<360 && aLat - uLat >= 0 && aLong - uLong<= 0)
                        Add a to specialMarkers
```