Sketch an analog clock face by drawing a large circle and putting tick marks on at the location of each hour.

1. What is the angular separation (in radians) between two adjacent hour marks measured from the center of the clock?

2. For each of the hour marks, find the sine and cosine of the angles the hour hand makes. Let the hour hand pointing at 3 o'clock be the positive horizontal axis and pointing at 12 o'clock be the positive vertical axis.