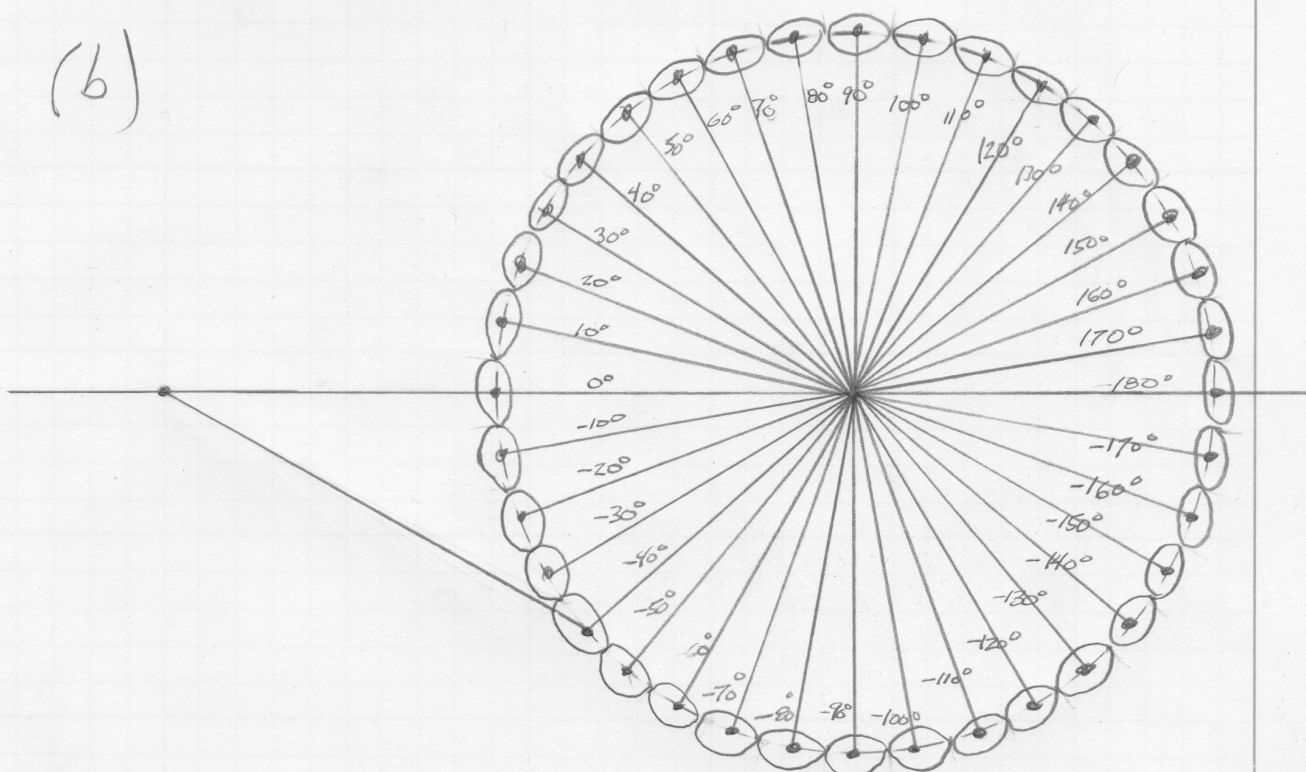


(b)



Distance from corpuscle to center of ring = 91.5
we'll do everything in mm

Distance from corpuscle to center of
bead at $-40^\circ = r_{-40^\circ} = 64.5$

Angle of force of bead at -40° relative
to horizontal = $\theta_{-40^\circ} = 29^\circ$

Cosine of this angle = $\cos \theta_{-40^\circ} = 0.875$

Product of $\cos \theta_{-40^\circ} \cdot \frac{1}{r_{-40^\circ}} = 0.0136$

The boxed work has to be done for all 36 beads. However, the bead at -40° has the same value as the one at $+40^\circ$ (etcetera), so there are only 19 measurements to do.