

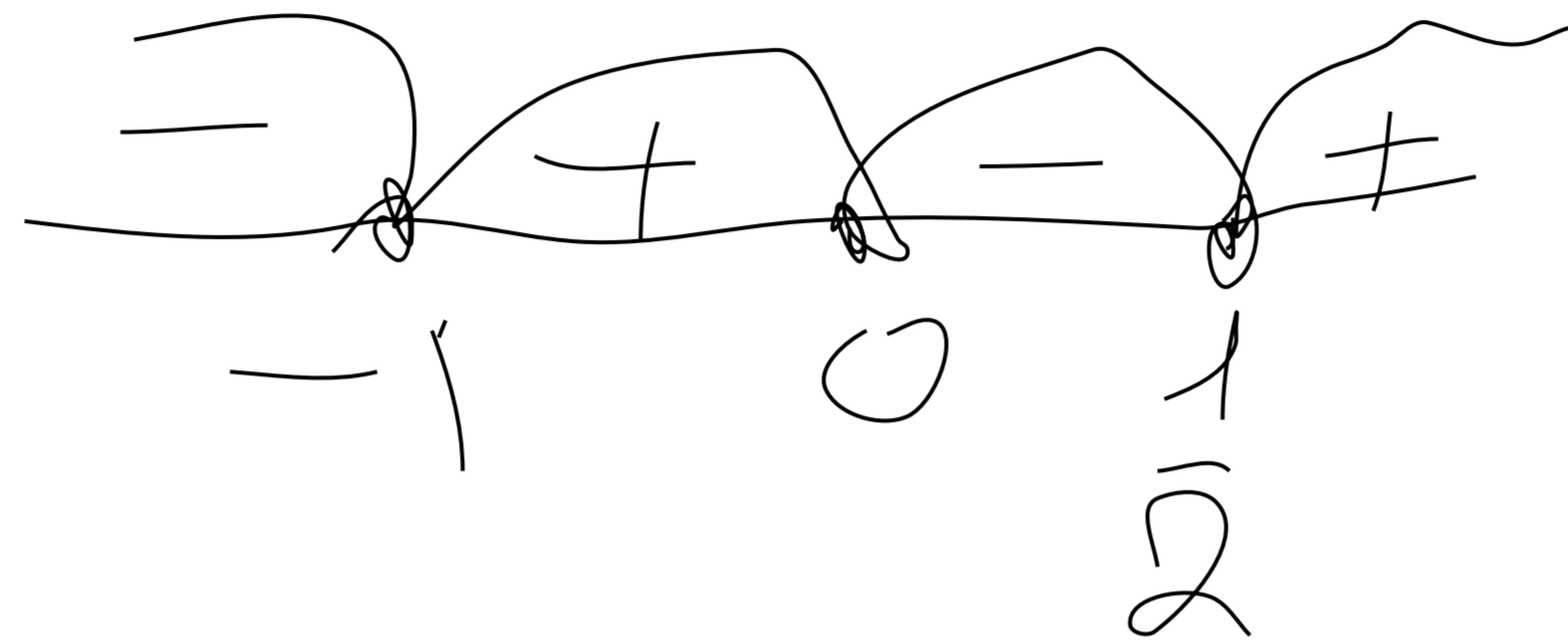
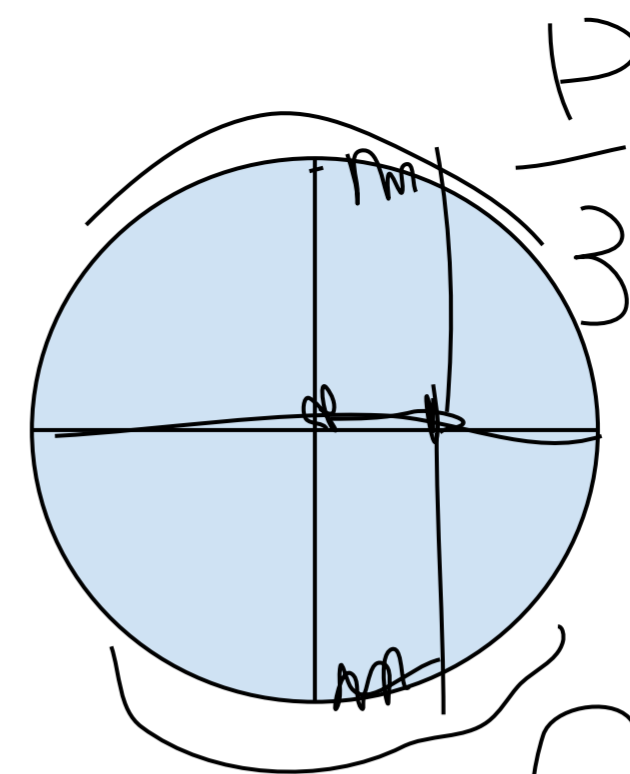
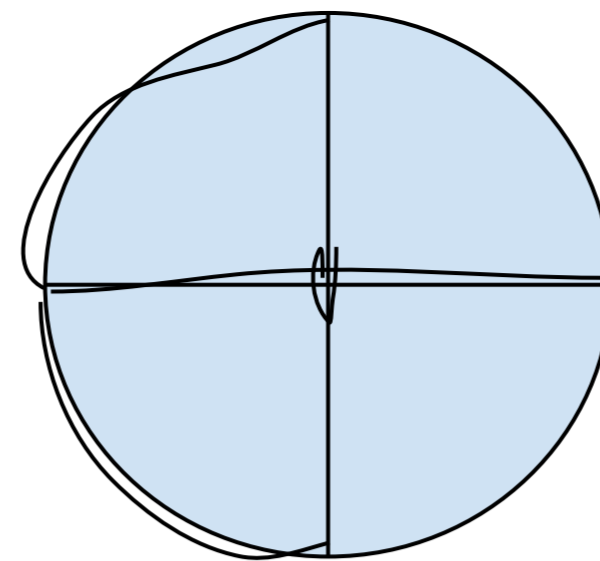
$$\begin{aligned} \cos x \cdot \cos 2x \cdot \cos 3x &\leq 0 \\ \frac{1}{2}[\cos 4x + \cos 2x] \cdot \cos 2x &\leq 0 \\ [\cos 4x + \cos 2x] \cdot \cos 2x &\leq 0 \\ [2\cos^2 2x - 1 + \cos 2x] \cdot \cos 2x &\leq 0 \end{aligned}$$

$$\begin{aligned} \cos 2x &= t \\ (2t^2 + t - 1)t &\leq 0 \\ t &= -1, \frac{1}{2} \\ (t+1)(t-\frac{1}{2})t &\leq 0 \\ t &\in (-\infty; -1] \cup [0; \frac{1}{2}] \end{aligned}$$

$$\begin{aligned} \cos 2x &= -1 \\ 2x &= \pi + 2\pi k \\ x &= \frac{\pi}{2} + \pi k \end{aligned}$$

$$\begin{aligned} \cos 2x &\geq 0 \\ \cos 2x &\leq \frac{1}{2} \\ \frac{\pi}{3} + 2\pi k &\leq 2x \leq \frac{\pi}{2} + 2\pi k \\ \frac{3\pi}{2} + 2\pi k &\leq 2x \leq \frac{5\pi}{3} + 2\pi k \end{aligned}$$

$$\begin{aligned} \frac{\pi}{6} + \pi k &\leq x \leq \frac{\pi}{4} + \pi k \\ \frac{3\pi}{4} + \pi k &\leq x \leq \frac{5\pi}{6} + \pi k \\ x &= \frac{\pi}{2} + \pi k \end{aligned}$$



$\frac{5\pi}{3}$