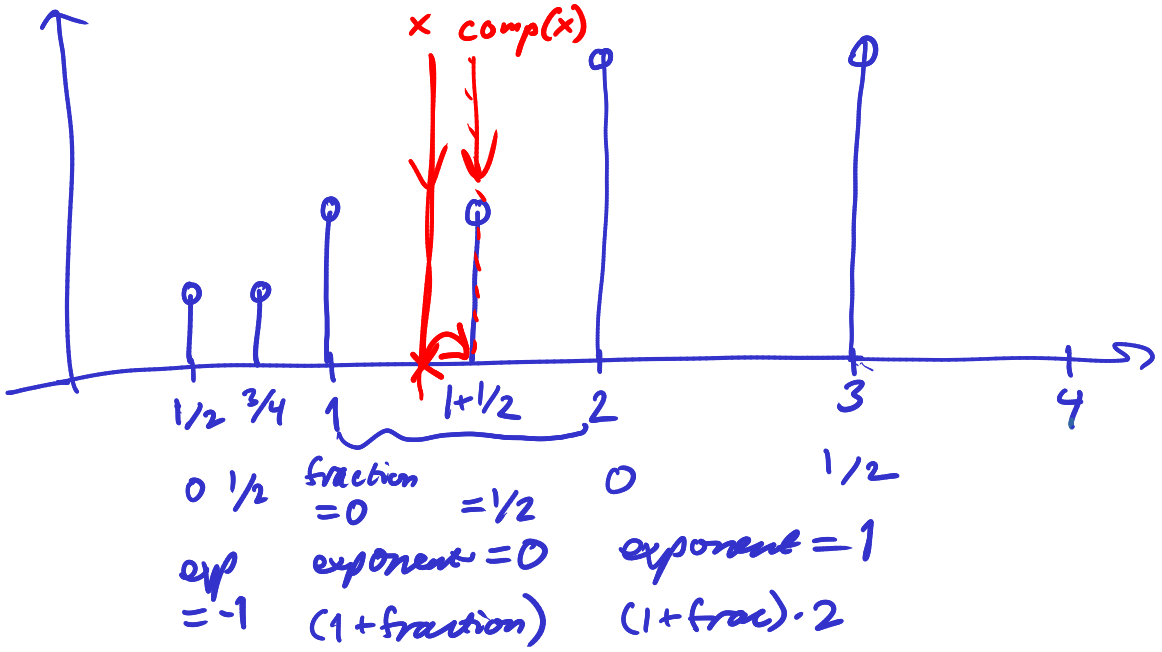

Clarification about $\sin(k(1+\varepsilon)\pi)$:

For even k, $\sin(k(1+\varepsilon)\pi) = \sin(k(1+\varepsilon)\pi - 2\pi\cdot\frac{k}{2})$

$= \sin(k\varepsilon\pi)$

For odd k, $\sin(k(1+\varepsilon)\pi) = \sin(k(1+\varepsilon)\pi - 2\pi\frac{k-1}{2})$

$= \sin(k\varepsilon\pi + \pi)$

$= -\sin(k\varepsilon\pi)$

Therefore, $|\sin(k(1+\varepsilon)\pi)| = |\sin(k\varepsilon\pi)|$ for all $k = 1, 2, 3, \ldots$