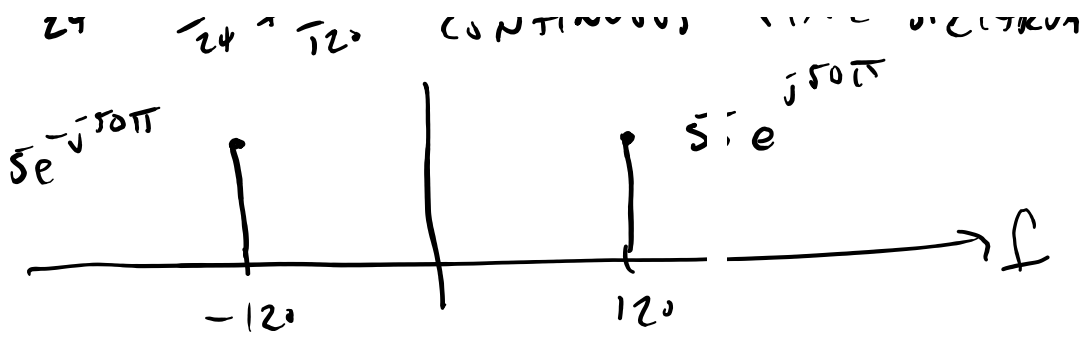
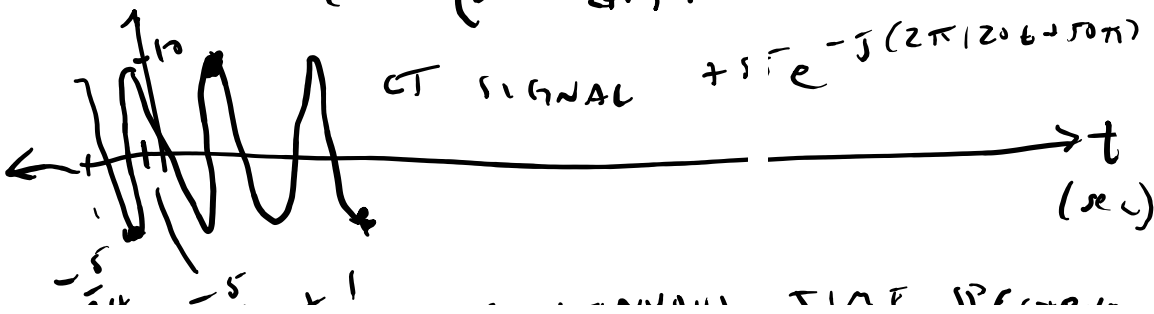


$$A = 10 \quad f = 120 \text{ Hz}$$

$$\theta = 50$$

$$x(t) = 10 \cos(2\pi(120t + 50^\circ))$$

$$= 10 \cos(240\pi(t + \frac{50}{240})) = 5e^{j(2\pi(120t + 50^\circ))}$$

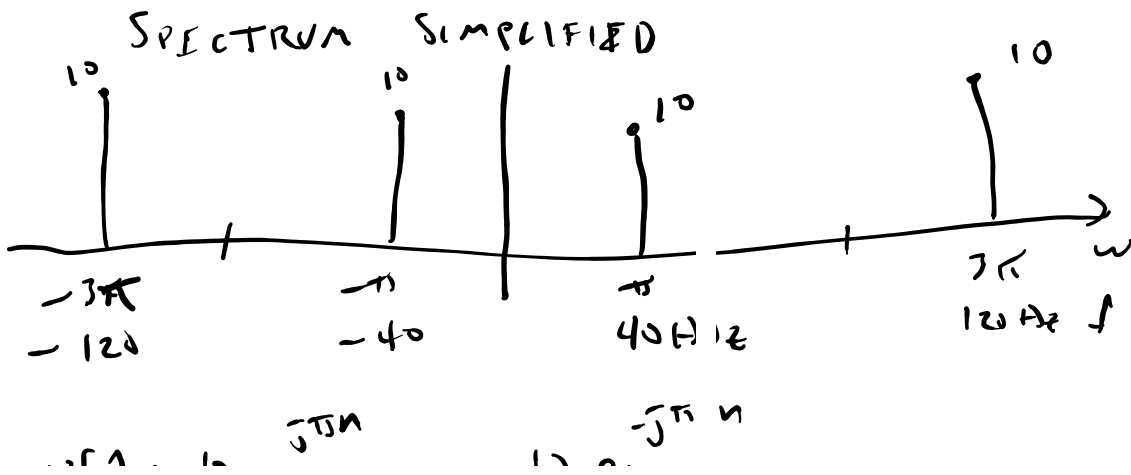
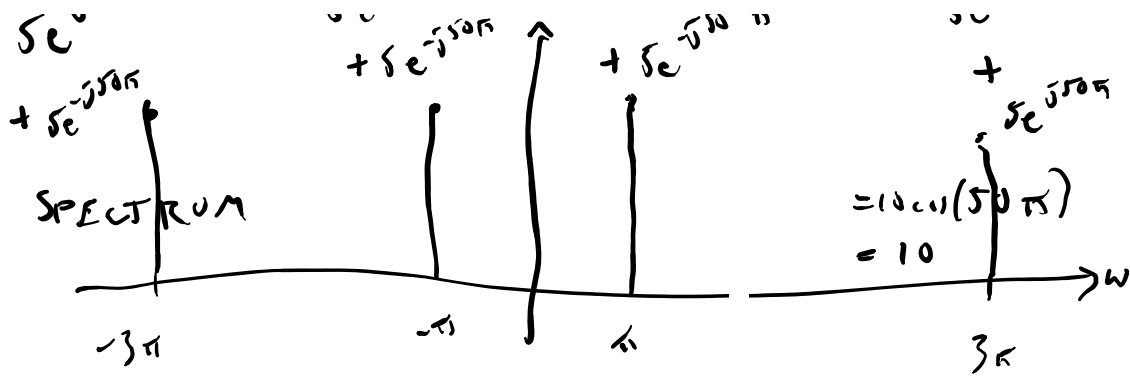


$$F_s = 240 \text{ samples/second}$$

$$F_s = 80 \frac{\text{samples}}{\text{second}}$$

$$3 \pi \left[ \frac{\text{rad}}{\text{sec}} \right] = \frac{120 \left[ \frac{\text{cyc}}{\text{sec}} \right] \cdot 2\pi \left[ \frac{\text{rad}}{\text{cyc}} \right]}{80 \left[ \frac{\text{samples}}{\text{sec}} \right]}$$

$$5e^{-j50^\circ}$$



$$x(t) = 10 e^{j50\pi t} + 10 e^{-j50\pi t}$$

$$= 20 \cos(\pi t) \times 10$$

