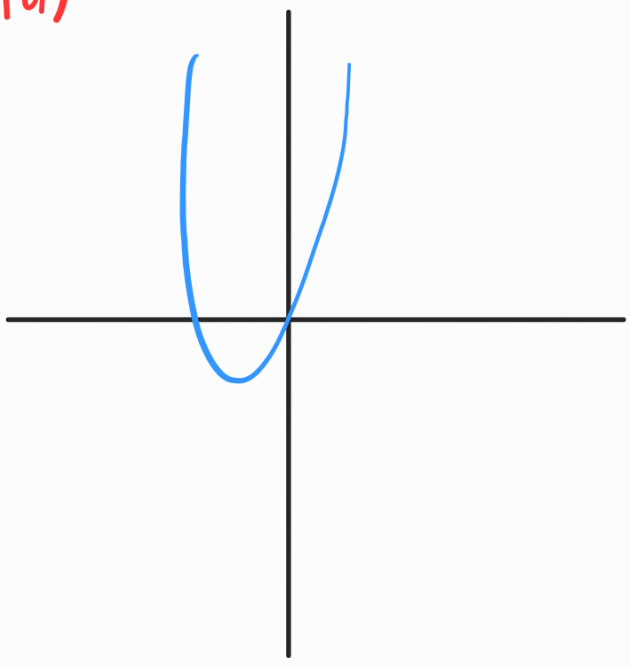
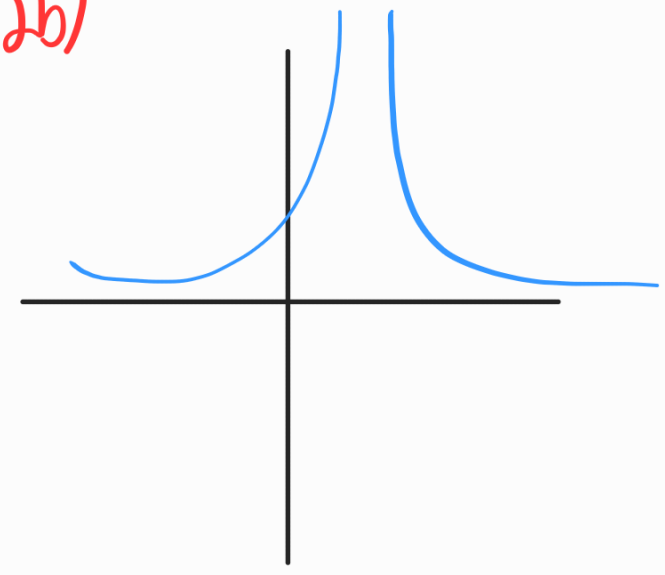
1A. Graphing

1a)



2b)



3a) odd

3b) even

3e) even

6b)

$$\sin(x) - \cos(x) = A\sin(x + c)$$

$$= A\sin(x)\cos(c) + A\sin(c)\cos(x)$$

$$= \sin(x)\cdot \underbrace{A\cos(c)}_{1} + \cos(x)\cdot \underbrace{A\sin(c)}_{-1}$$

$$A = \frac{1}{\cos(c)} \Rightarrow -1 = \frac{\sin(c)}{\cos(c)} = \tan(c) \Rightarrow c = \arctan(-1) = -0.79$$

$$A = \frac{1}{\cos(-0.79)} = 1.42$$

$$\boxed{\sin(x) - \cos(x) = 1.42\sin(x - 0.79)}$$

7b)