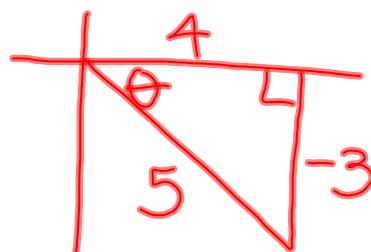


Review:

Given that $\sec \theta = \frac{5}{4}$ and θ is in quadrant IV, evaluate

$$\cos \theta = \frac{4}{5}$$

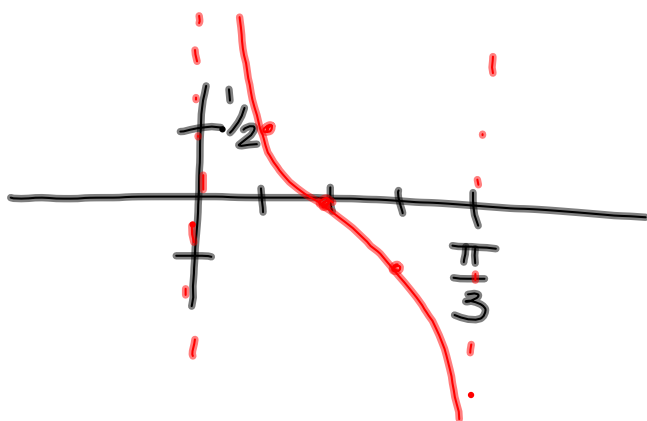
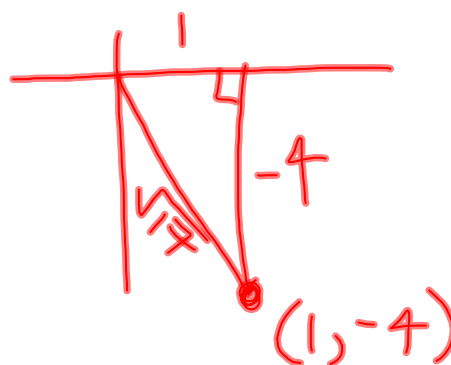
$$\tan \theta = \frac{-3}{4}$$



Given that the terminal side of passes through the point $(1, -4)$, evaluate

$$\cot \theta = -\frac{1}{4}$$

$$\sin \theta = \frac{-4}{\sqrt{17}}$$



A. -1

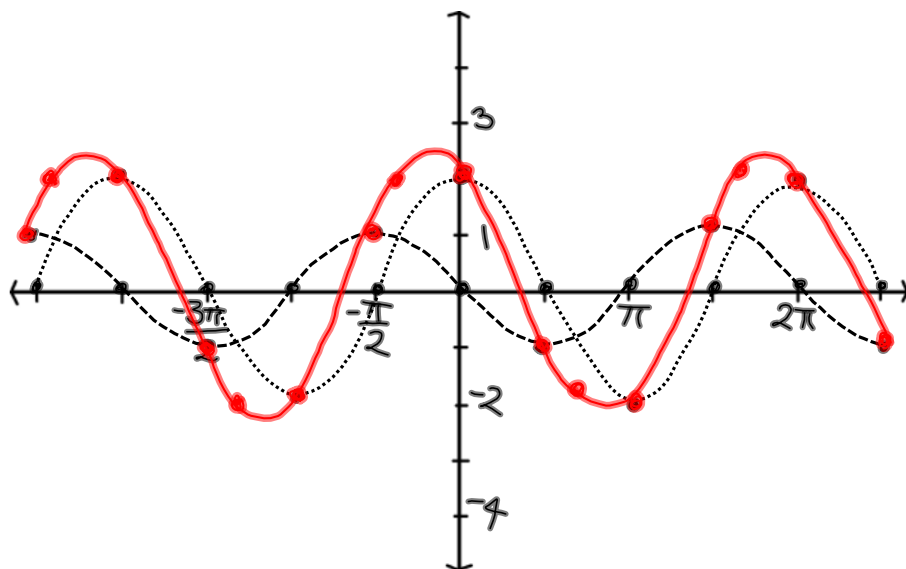
B. $-\frac{\sqrt{3}}{2}$

C. 1

D. $\frac{2}{\sqrt{3}}$

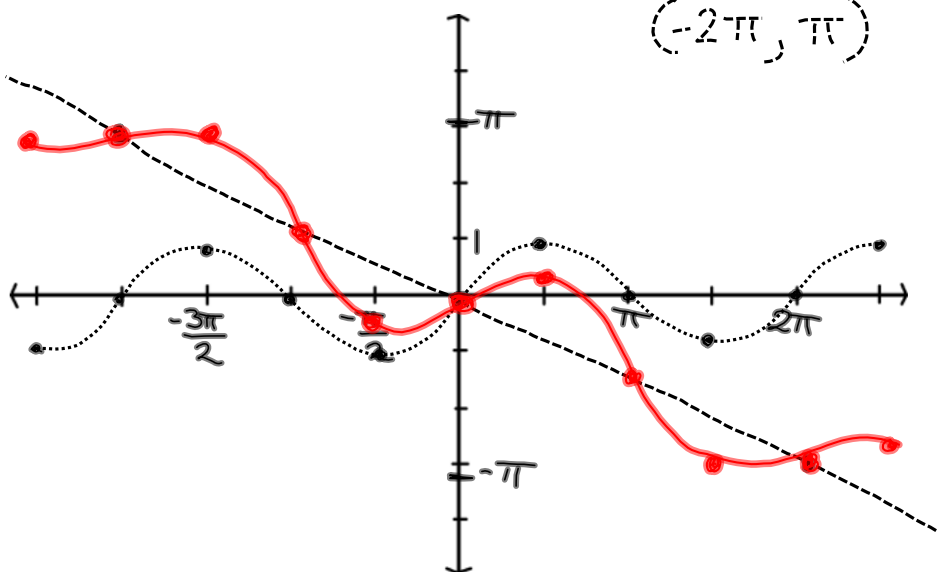
$$y = 2\cos x - \sin x = 2\cos x + (-\sin x)$$

both have period 2π
amp 2 amp 1



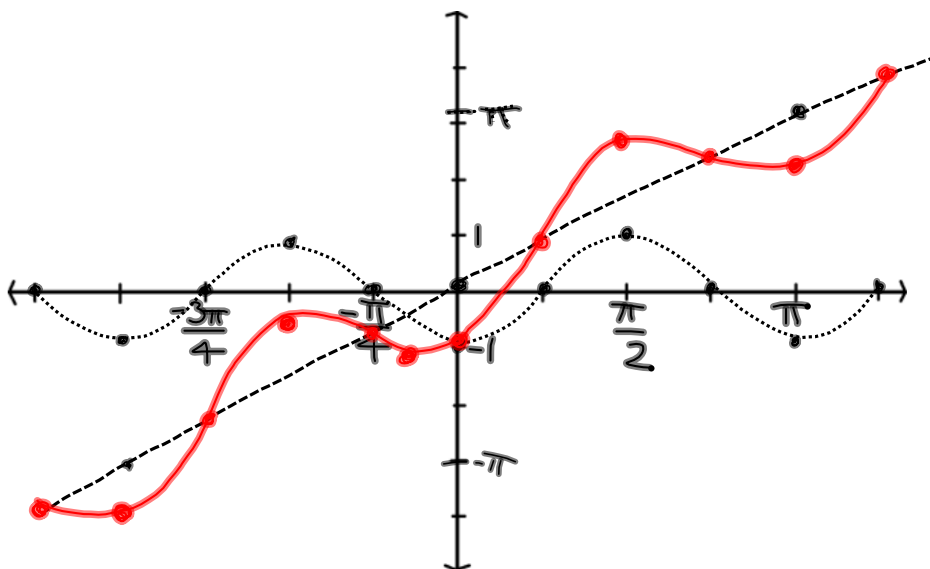
$$y = \sin x - \frac{1}{2}x = \sin x + \left(-\frac{1}{2}x\right)$$

↑
 $(0, 0)$
 $(2\pi, -\pi)$
 $(-2\pi, \pi)$



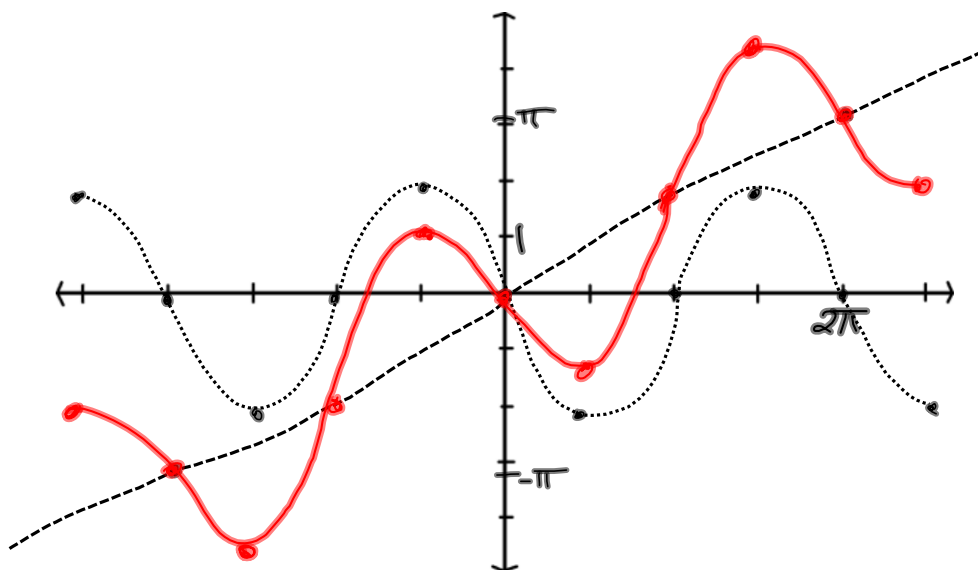
$$y = x - \cos 2x$$

amp: 1
per: π



$$y = \frac{1}{2}x - 2\sin x = \frac{1}{2}x + (-2\sin x)$$

slope: $\frac{1}{2}$ amp: 2
per: 2π



$$y = -\frac{4}{3} \sec\left(\frac{2\pi}{3}x + \frac{3\pi}{2}\right) - \frac{2}{3}$$

amp: $\frac{4}{3}$

per: $\frac{2\pi}{\frac{2\pi}{3}}$

$$\frac{2\pi \cdot 3}{1 \cdot 2\pi} = 3$$

h. shift:

$$\frac{\frac{3\pi}{2}}{\frac{2\pi}{3}} = \frac{3\pi \cdot 3}{2 \cdot 2\pi} = \frac{9}{4} \text{ units left}$$

v. shift:

down $\frac{2}{3}$ 1 tick

