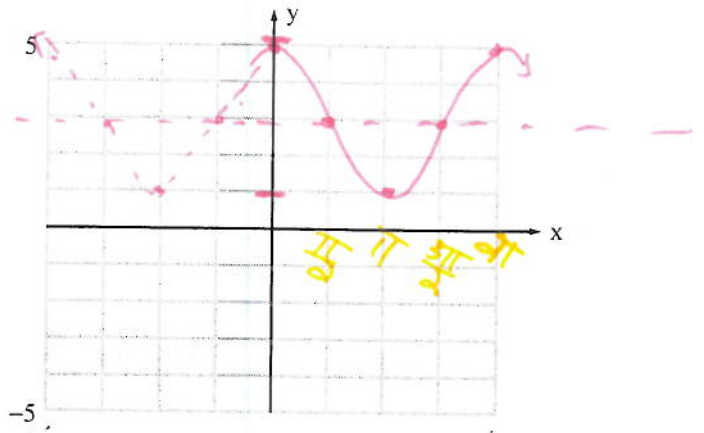


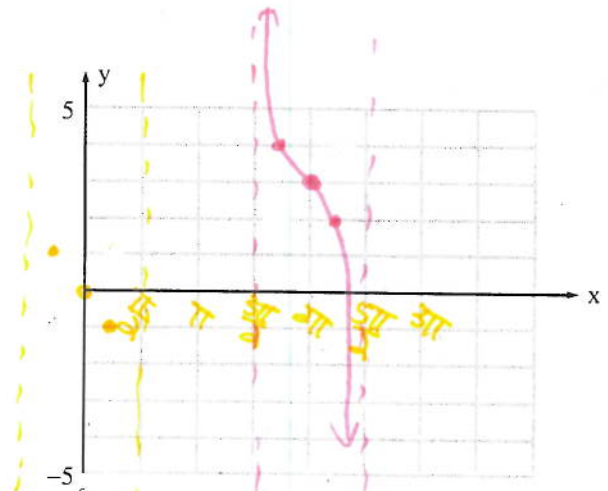
4. $y = 2 \cos x + 3$

Amp: 2
 reflection: no
 period: 2π (intervals $\frac{\pi}{2}$)
 phase shift: no
 vertical shift: $\uparrow 3$
 max. $(0, 5)$ $(2\pi, 5)$ min. $(\pi, 1)$



5. $y = -\tan(x - 2\pi) + 3$

Amp: reflection: yes
 period: π
 phase shift: $\frac{c}{b} = \frac{2\pi}{1} \rightarrow 2\pi$
 vertical shift: $\uparrow 3$



extra pts.
 $(\frac{\pi}{4}, 1)$ $(\frac{5\pi}{4}, 1)$ b/4 shift

6. $y = 4 - 2 \sin(x + \pi)$
 $y = -2 \sin(x + \pi) + 4$

reflection: yes
 amp: 2
 period: 2π (intervals $\frac{\pi}{2}$)
 phase shift: $\frac{\pi}{1} = \pi \leftarrow \pi$

vertical shift: $+4 \uparrow 4$
 max $(\frac{\pi}{2}, 6)$ min $(-\frac{\pi}{2}, 2)$

