

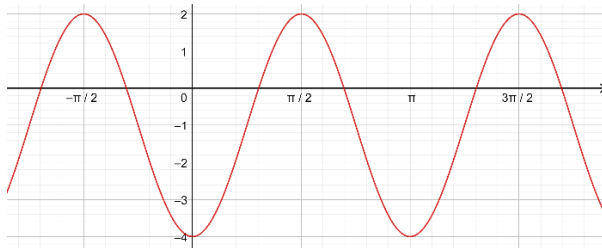
1. Determine the characteristics and graph the following functions

a) $f(x) = -2 \sin(2x + \pi) + 1$

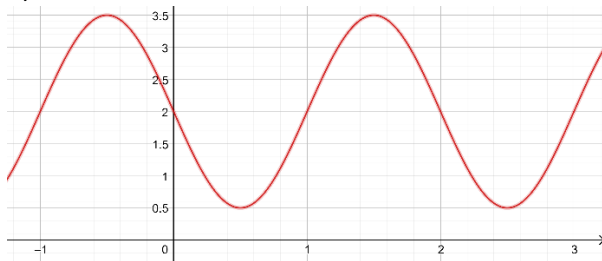
b) $y + 1 = 0.5 \cos\left(\frac{\pi}{2}(x - 3)\right)$

2. Determine the equations (in both sine and cosine) of the following graphs

a)



b)

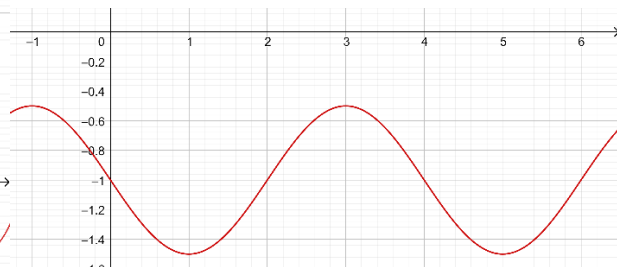
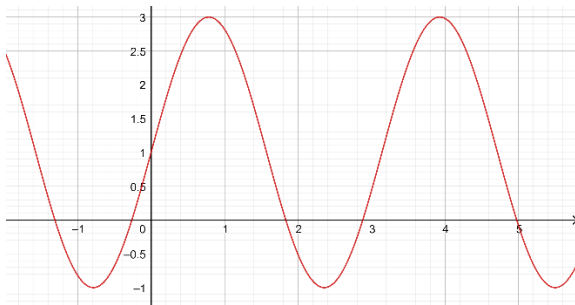


Answer:

1.

a) Amp: 2, Period: π , PS: $-\frac{\pi}{2}$, VD: 1

b) Amp: 0.5, Period: 4, PS: 3, VD: -1



2.

a) $y = 3 \sin\left(2\left(x - \frac{\pi}{4}\right)\right) - 1$ or $y = 3 \cos\left(2\left(x - \frac{\pi}{2}\right)\right) - 1$

b) $y = 1.5 \sin(\pi(x - 1)) + 2$ or $y = 1.5 \cos(\pi(x + 0.5)) + 2$