

① A

④ C

② B $\Rightarrow$ see note below

② D

⑤ A

③ B

③ D

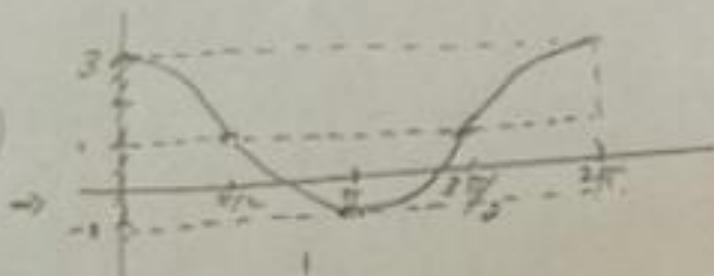
⑥ A

⑥ ⑤ $0 \leq 2x < 2\pi$

$$\Rightarrow \frac{0}{2} \leq \frac{2x}{2} < \frac{2\pi}{2}$$

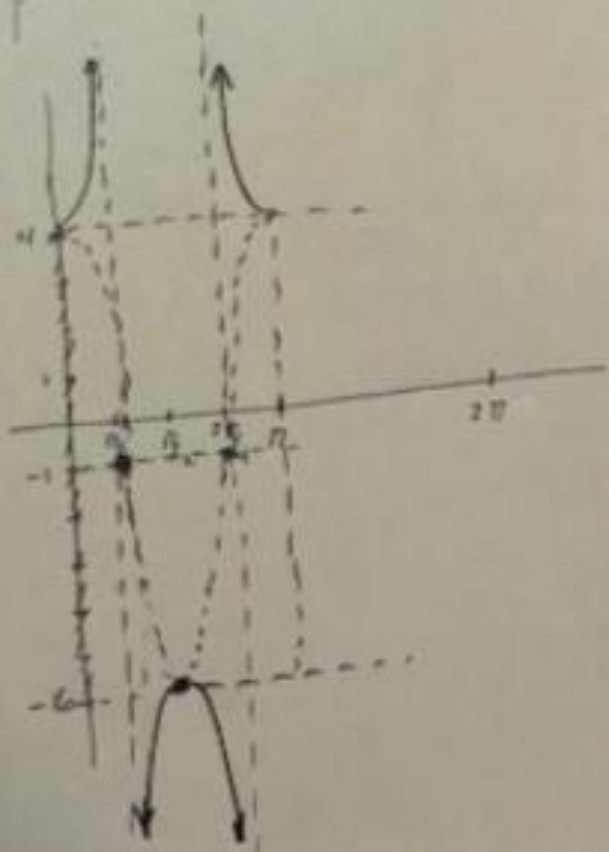
$$\Rightarrow 0 \leq x < \pi \Rightarrow [0, \pi)$$

⑦ Note: there is a typo
It should read: "To what
does the '-2' correspond?"

#9. $f(x) = 2\cos(x) + 1$ ① shift $\uparrow 1$ ② Basic shape: ~~fx~~③ Amp: $|2| = 2$ ④ Standard Interval:
 $0 \leq x < 2\pi$ #10. $f(x) = -5\sec(2x) - 1$ ① $\hookrightarrow f(x) = -5\cos(2x) - 1$ ② shift $\downarrow 1$ ③ Basic shape: ~~fx~~④ Amp: $|-5| = 5$ ⑤ Standard Interval:
 $0 \leq 2x < 2\pi$

$$\Rightarrow \frac{0}{2} \leq \frac{2x}{2} < \frac{2\pi}{2}$$

$$\Rightarrow 0 \leq x < \pi$$



#11 $f(x) = -2 \sin(\frac{1}{2}x)$

② shift: none

③ basic shape:

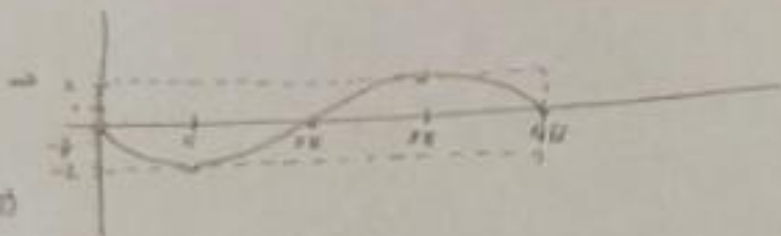
④ Amp: $|-2| = 2$

⑤ Standard Interval:

$0 \leq \frac{1}{2}x < 2\pi$

$\Rightarrow (2)(0) \leq (2)(\frac{1}{2}x) < (2)(2\pi)$

$\Rightarrow 0 \leq x < 4\pi$



#12 $f(x) = \tan(2x)$

② shift: none

③ Basic shape:

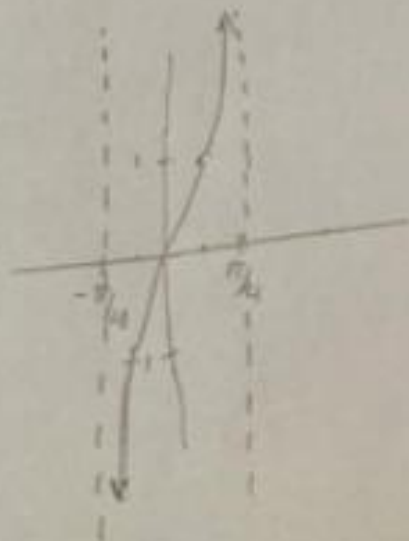
④ Amp: 1

⑤ Standard Interval:

$-\frac{\pi}{2} < 2x < \frac{\pi}{2}$

$\Rightarrow (\frac{1}{2})(-\frac{\pi}{2}) < (\frac{1}{2})(2x) < (\frac{1}{2})(\frac{\pi}{2})$

$\Rightarrow -\frac{\pi}{4} < x < \frac{\pi}{4}$



#13 $f(x) = \sec(x+\pi) + 1$ sketch

② shift: $\uparrow 2 \leftarrow \pi \rightarrow f(x) = \cos(x+\pi) + 1$

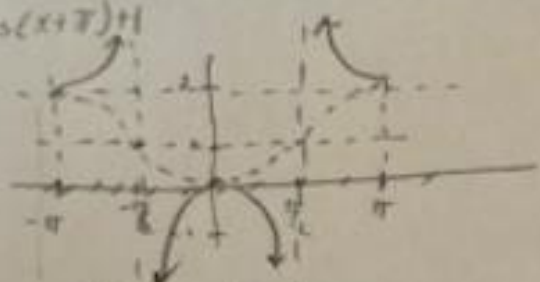
③ Basic shape:

④ Amp: $|1| = 1$

⑤ Standard Interval:

$0 \leq x + \pi < 2\pi$
 $-\pi \quad -\pi \quad -\pi$

$\Rightarrow -\pi \leq x < \pi$



#14 $f(x) = 4 \csc(x) + 1$

$\rightarrow$ sketch $f(x) = 4 \sin(x) + 1$

② shift: $\uparrow 1$

③ Basic shape:

④ Amp: $|4| = 4$

⑤ Standard Interval: $0 \leq x < 2\pi$



