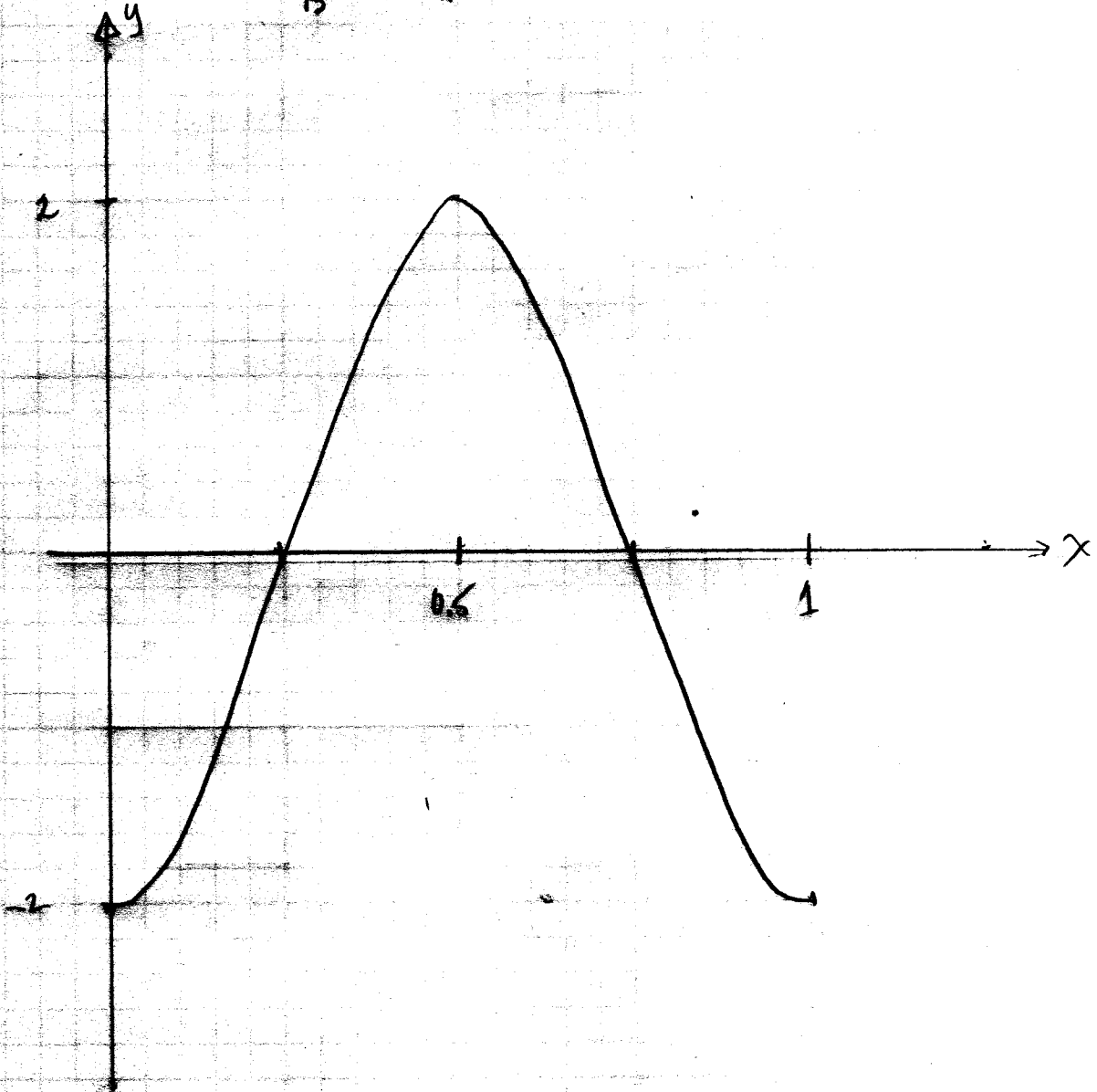


①  $y = -2 \cos \pi x$

Amplitude =  $|-2| = 2$

Period:  $T = \frac{2\pi}{B} = \frac{2\pi}{\pi} = 2$



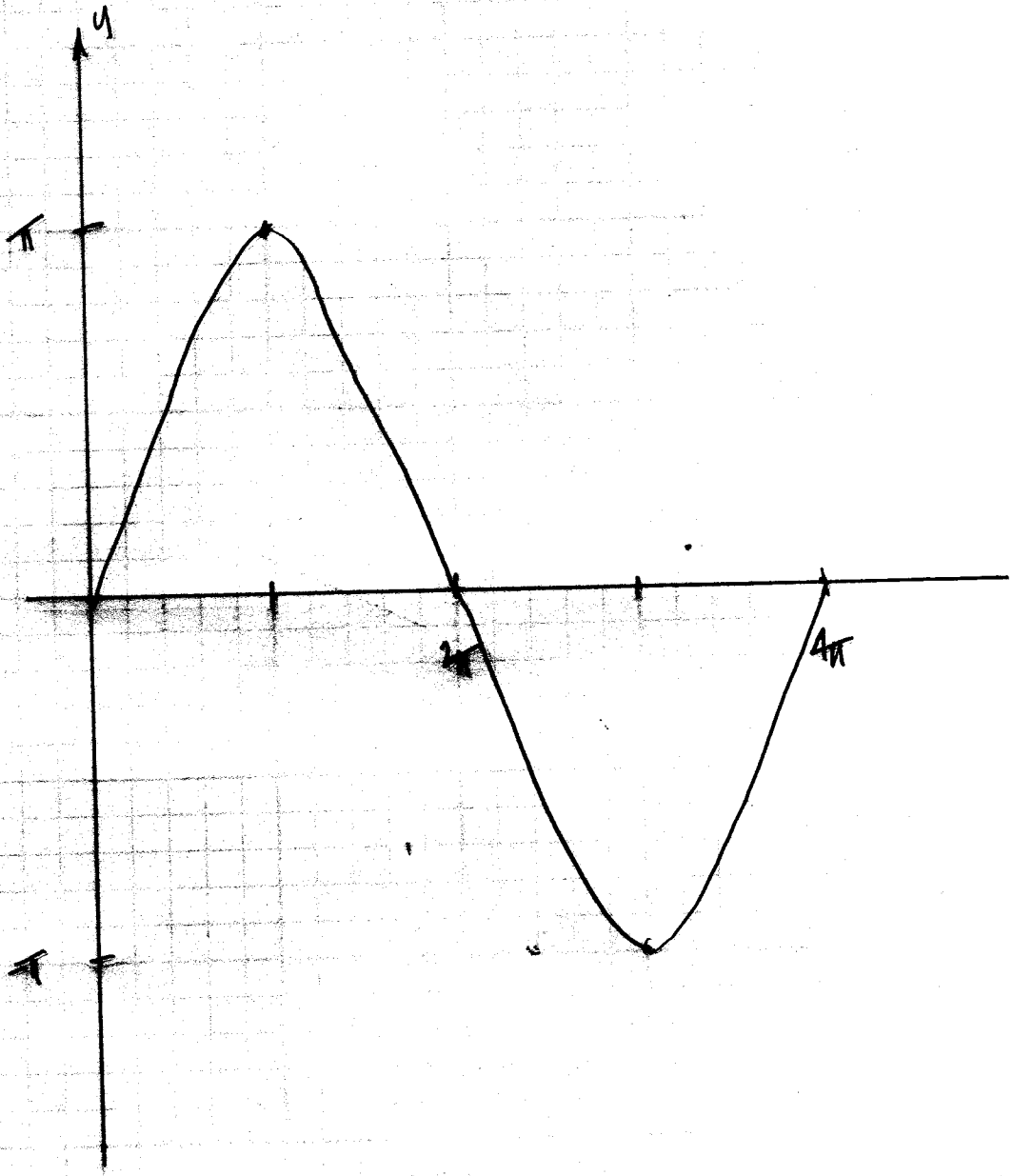
6/2/23

②

$$\left. \begin{aligned} y &= \pi \sin\left(\frac{x}{2}\right) \\ y &= \pi \sin\left(\frac{1}{2}x\right) \end{aligned} \right\}$$

$$A = |\pi| = \pi$$

$$T = \frac{2\pi}{\frac{1}{2}} = 4\pi$$



22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS



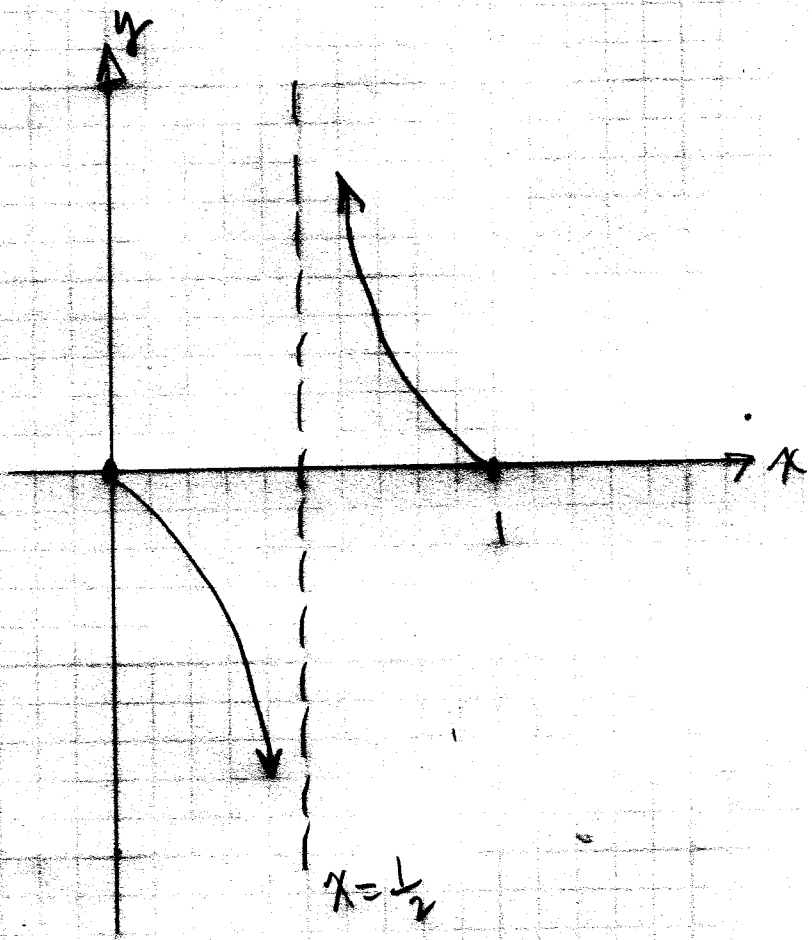
6 pts

③

$$y = -\tan \pi x$$

Amp = None

Period:  $T = \frac{\pi}{B} = \frac{\pi}{\pi} = 1$



5 pts

①

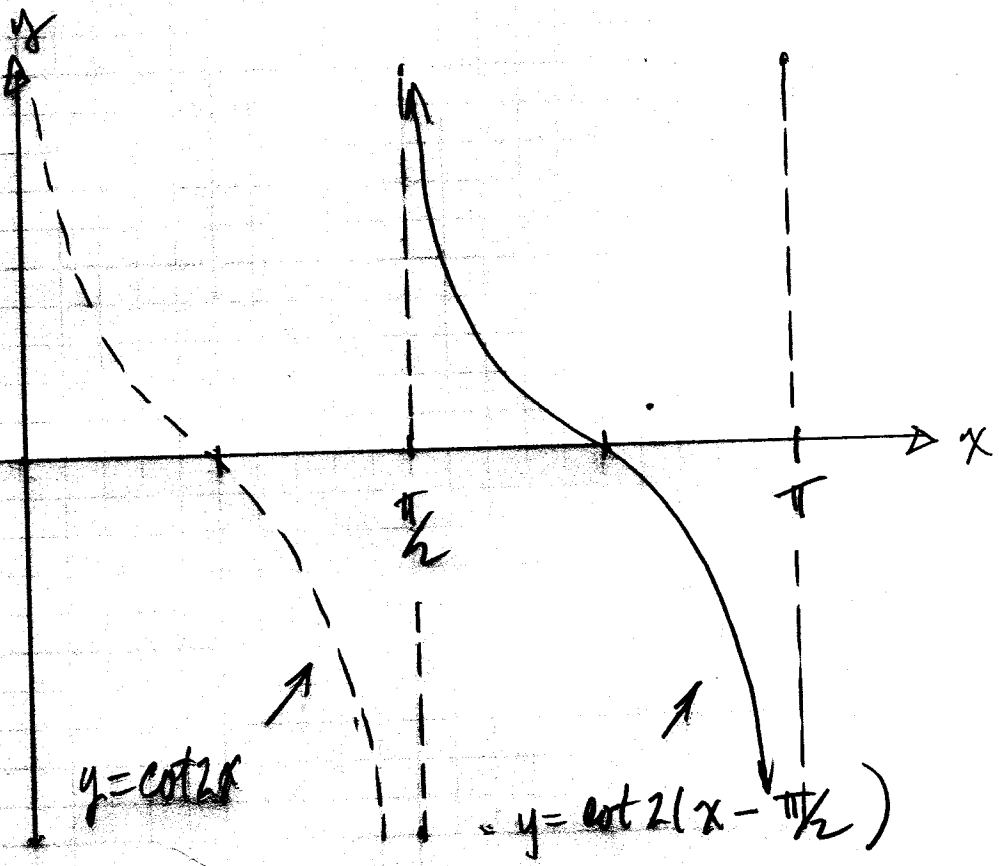
$$y = \cot(2x - \pi)$$

Phase Shift:  $\pi/2$

$$y = \cot 2(x - \pi/2)$$

$$y = \cot 2x$$

Amp = None  
 $T = \frac{\pi}{2}$

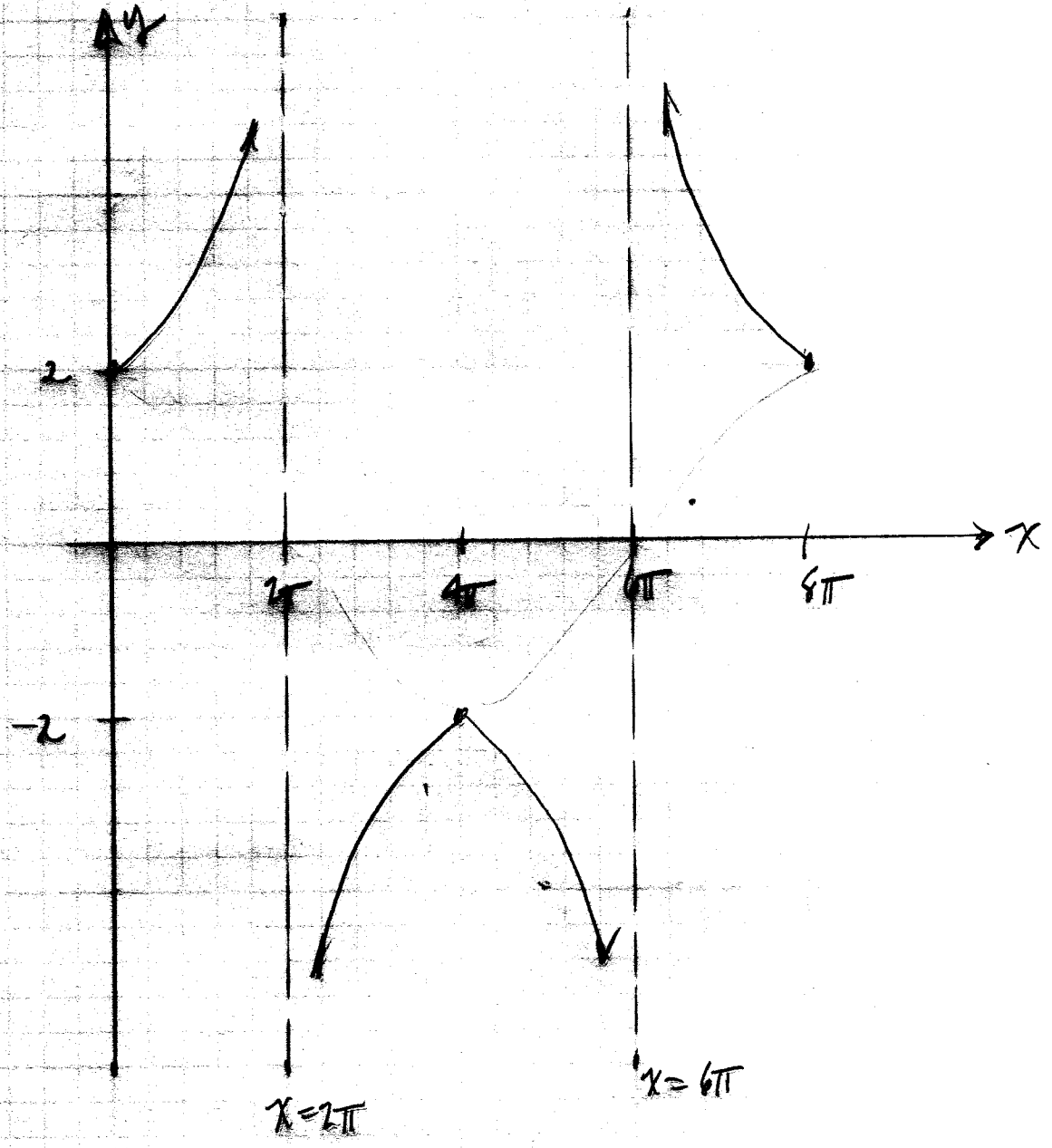


5/15

5

$$y = 2 \sec \frac{x}{4} \quad \left. \vphantom{y = 2 \sec \frac{x}{4}} \right\} \text{Amp} = \text{None}$$

$$y = 2 \sec \frac{1}{4} x \quad \left. \vphantom{y = 2 \sec \frac{1}{4} x} \right\} \text{Period: } T = \frac{2\pi}{B} = \frac{2\pi}{\frac{1}{4}} = 8\pi$$



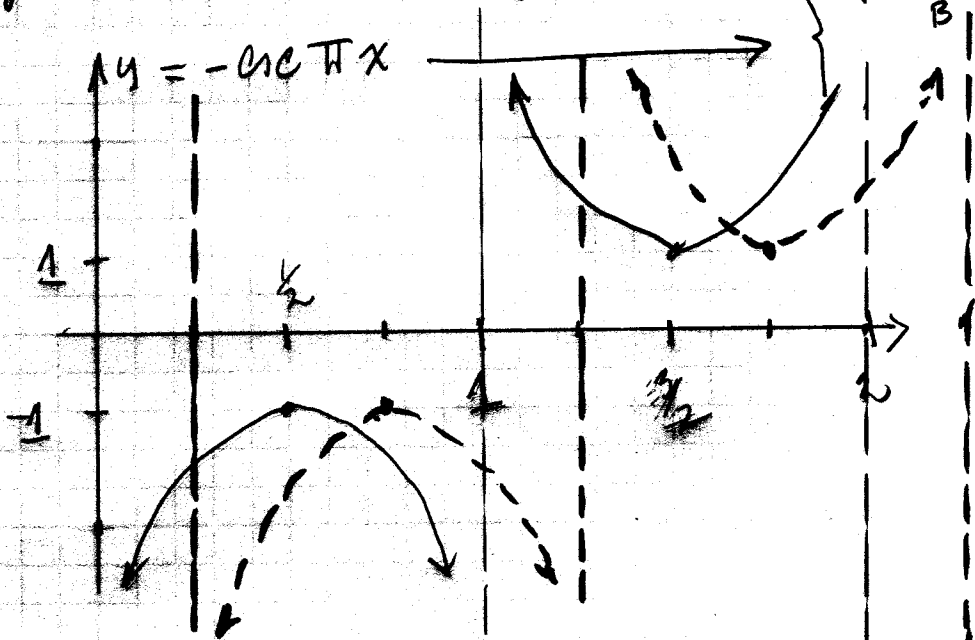
22-141 50 SHEETS  
22-142 100 SHEETS  
22-144 200 SHEETS  
SAMPAD

SPB  
⑥

$$y = -\csc(\pi x - \pi/4)$$

$$y = -\csc \pi (x - \frac{1}{4})$$

$$T = \frac{2\pi}{B} = \frac{2\pi}{\pi} = 2$$



$y = -\csc \pi (x - \frac{1}{4})$  needs shifting  $\frac{1}{4}$  unit to right

