

Mathematics Assignment 3(2)

Class XI

Chapter 3- Trigonometric Functions

Multiple Choice Questions

Questions on Amplitude, Period, range of trigonometric functions

1. The period of $3\cos(x/3)$ is

- A. π
- B. 2π
- C. 3π
- D. 6π

2. The period of $\sin(2x)$ is

- A. $\pi/3$
- B. $\pi/2$
- C. $2\pi/3$
- D. π

3. The period of $\cot(x/3)$ is

- A. π
- B. 2π
- C. 3π
- D. 4π

4. The range of $\cot(x)$ is

- A. $[-1 \ 1]$
- B. \mathbb{R}
- C. $\mathbb{R}-\{x|x = 1/2(2n+1)\pi/2, n \in \mathbb{Z}\}$
- D. $\mathbb{R}-\{x|x = n\pi, n \in \mathbb{Z}\}$

5. The period of $\sec(3x)$ is

- A. $\pi/3$
- B. $\pi/2$
- C. $2\pi/3$
- D. π

6. The period of $\cot(x)$ is

- A. π
- B. 2π
- C. 3π
- D. 4π

7. The period of $15\csc(x/3)$ is

- A. 15π
- B. 10π
- C. 5π
- D. 2π

8. The period of $\sin(x)/2$ is

- A. 2π
- B. 4π
- C. π
- D. None of Above

9. The period of $\tan(x)$ is

- A. $\pi/3$
- B. $\pi/2$
- C. $2\pi/3$
- D. 2π

10. The period of $3\sec x/3$ is

- A. π
- B. 2π
- C. 3π
- D. 6π

11. The range of $y = \sin(x)$ is

- A. $[-1 1]$
- B. $[-1 0]$
- C. $[-2 2]$
- D. None of Above

12. The domain of $\sin(x)$ is

- A. $[-1 1]$
- B. \mathbb{R}
- C. $\mathbb{R}-\{0\}$

D. $\mathbb{R} - \{1\}$

13. The period of $3\sin(x)/3$ is

- A. π
- B. 2π
- C. 3π
- D. 6π

14. The period of $\csc(3x)$ is

- A. $\pi/3$
- B. $\pi/2$
- C. $2\pi/3$
- D. π

15. The domain of $\sec(x)$ is

- A. $[-1, 1]$
- B. \mathbb{R}
- C. $\mathbb{R} - \{x \mid x = (2n+1)\pi/2, n \in \mathbb{Z}\}$
- D. $\mathbb{R} - \{x \mid x = n\pi, n \in \mathbb{Z}\}$

16. The period of $\csc(x)$ is

- A. π
- B. 2π
- C. 3π
- D. 4π

17. The period of $3\tan(x/3)$ is

- A. π
- B. 2π
- C. 3π
- D. 4π

18. The period of $\sec(2x)$ is

- A. $\pi/3$
- B. $\pi/2$
- C. $2\pi/3$
- D. 2π

19. The period of $15\sec(x/3)$ is

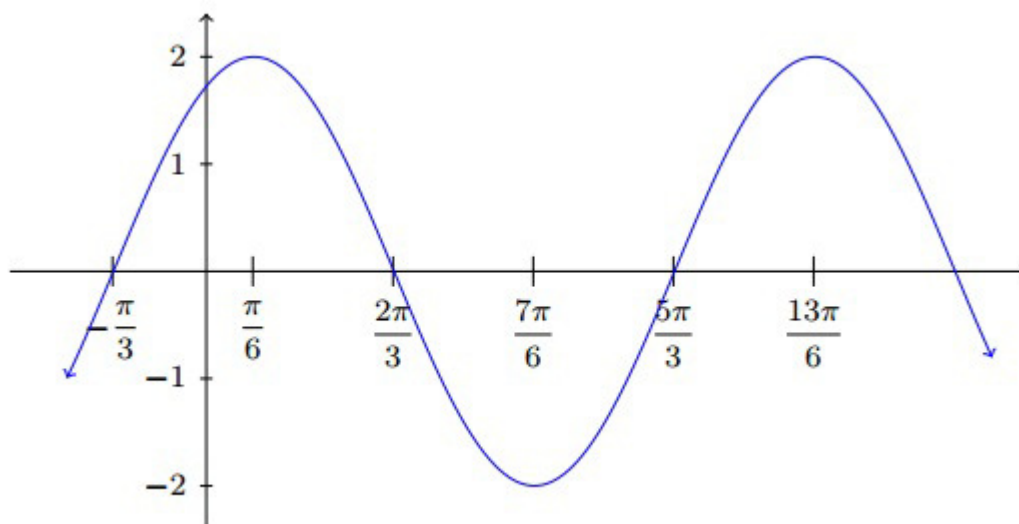
- A. π
- B. 2π
- C. 3π
- D. 6π

20. The period of $15\sin(x/15)$ is

- A. 30π
- B. 15π
- C. 10π
- D. 5π

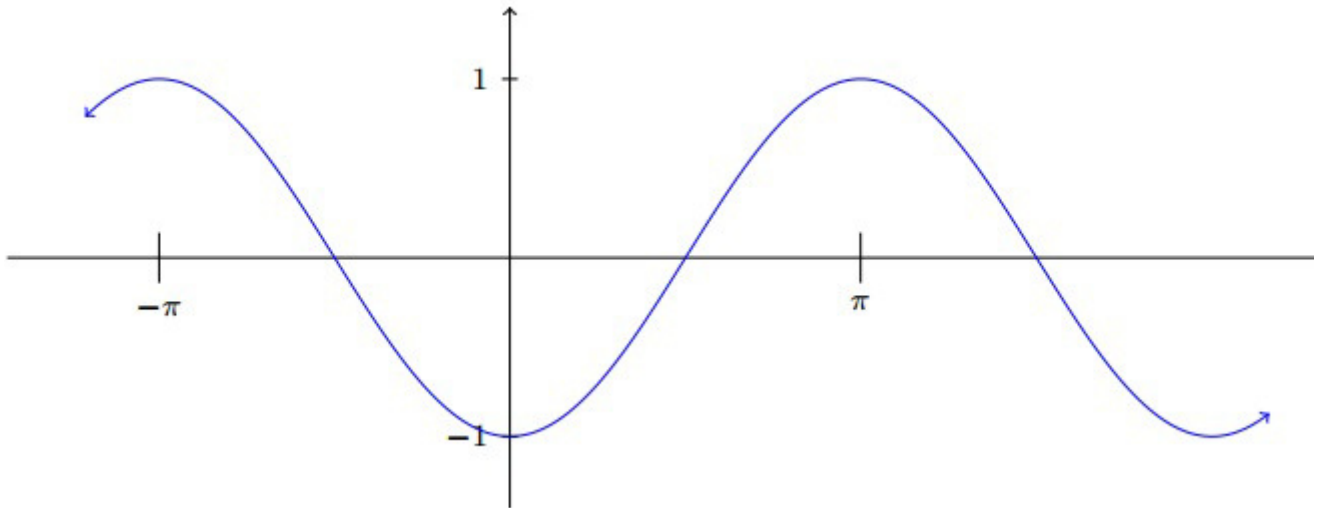
Questions on Graphs of Trigonometric Functions

21. What is the period of the graph shown below?



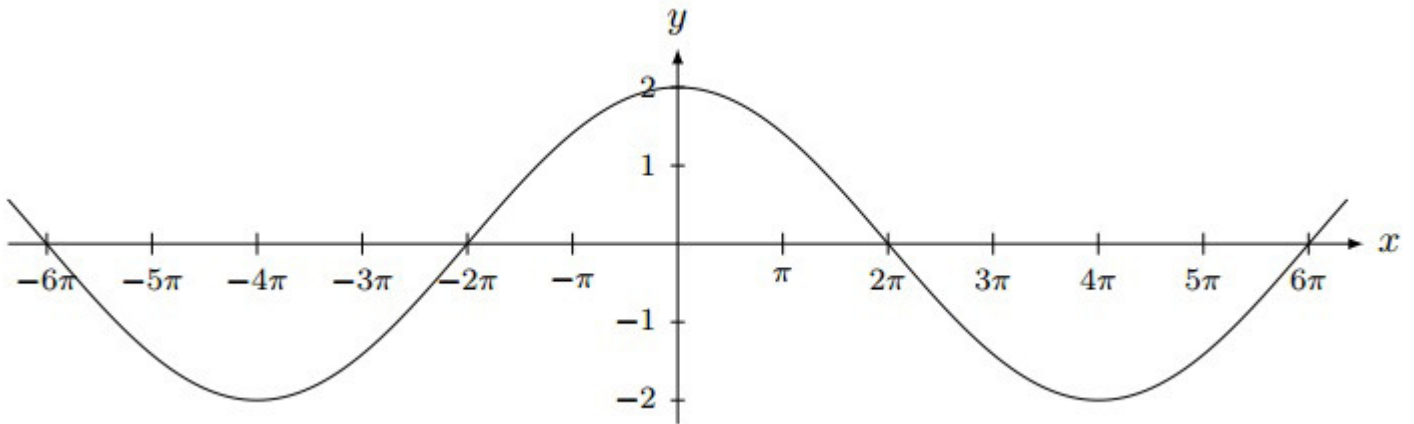
- A. $\pi/3$
- B. $5\pi/3$
- C. $2\pi/3$
- D. 2π

22. Which of the functions below represents the graph below?



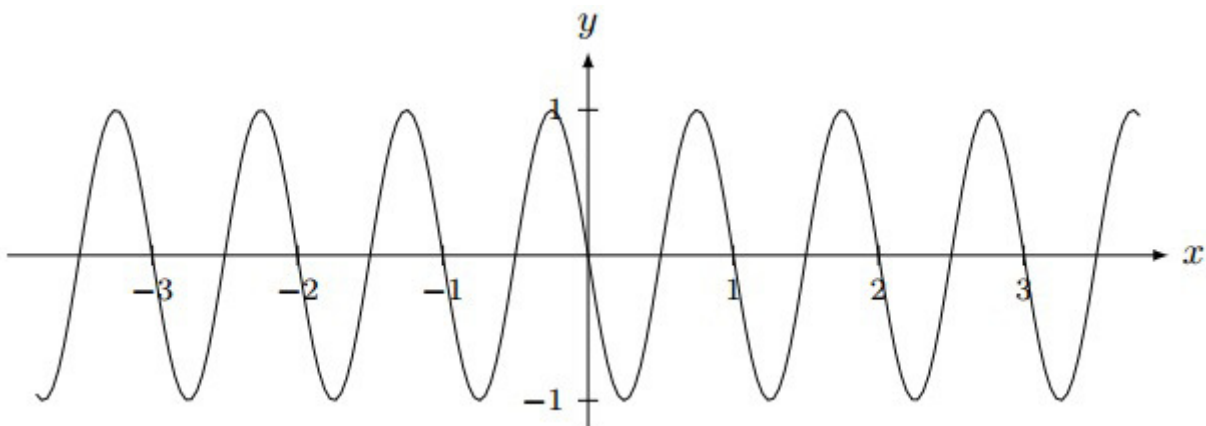
- A. $y = -\cos(2x)$
- B. $y = \cos(2x)$
- C. $y = -\cos(x)$
- D. $y = \cos(x)$

23. Which of the trigonometric functions correspond to the graph shown below?



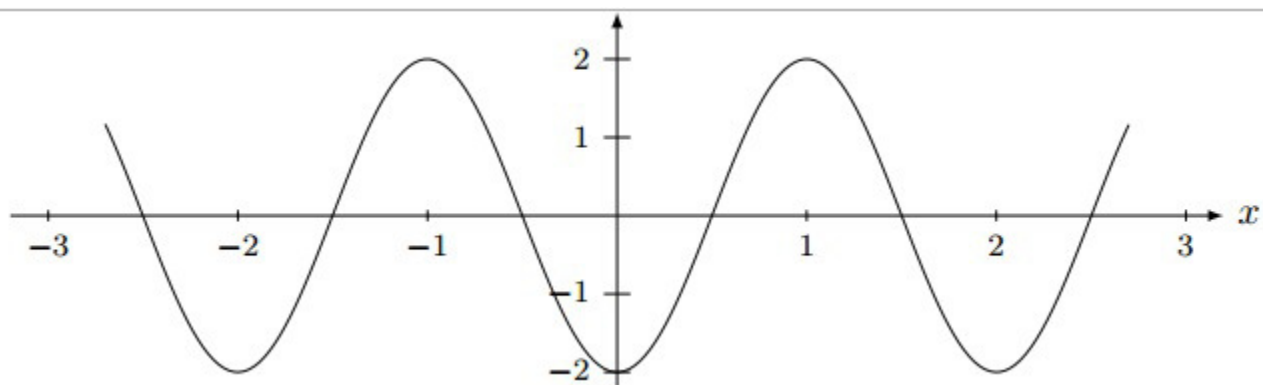
- A. $2 \sin(x / 4)$
- B. $2 \cos(4x)$
- C. $2 \cos(x / 4)$
- D. $2 \sin(4x)$

24. Which of the functions below correspond to the given graph?



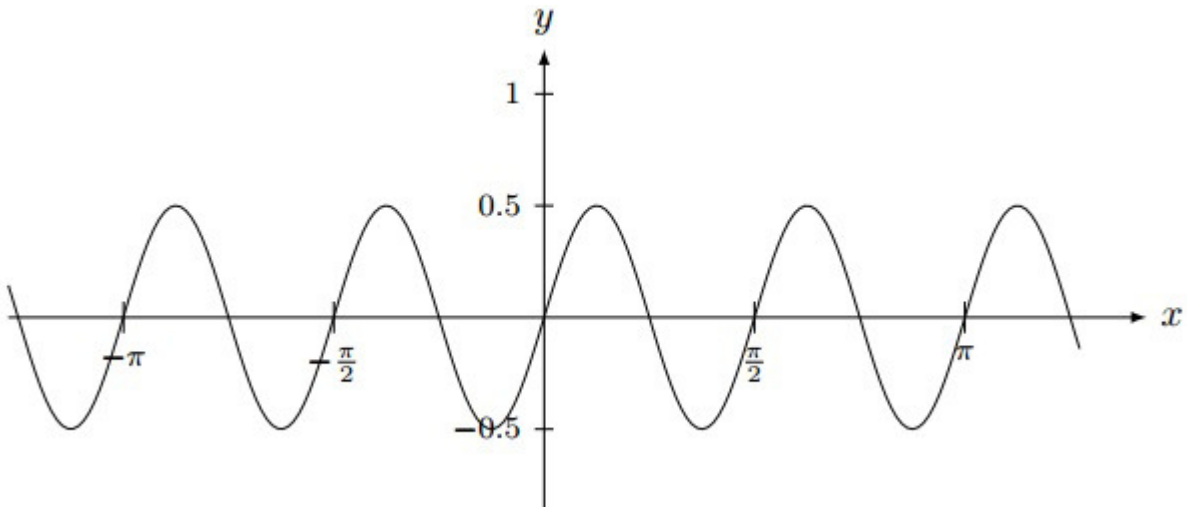
- A. $y = -\sin(2\pi x)$
- B. $y = \sin(2\pi x)$
- C. $y = \cos(2\pi x)$
- D. $y = -\sin(x)$

25. What is the period of the graph below?



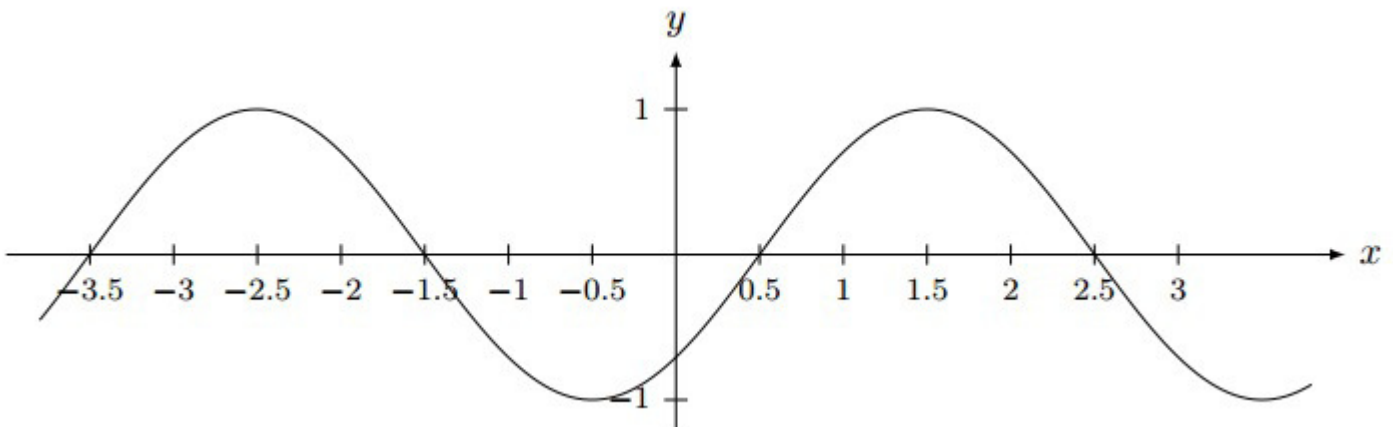
- A. 1
- B. 2
- C. π
- D. 2π

26. Find an appropriate function for the following graph:



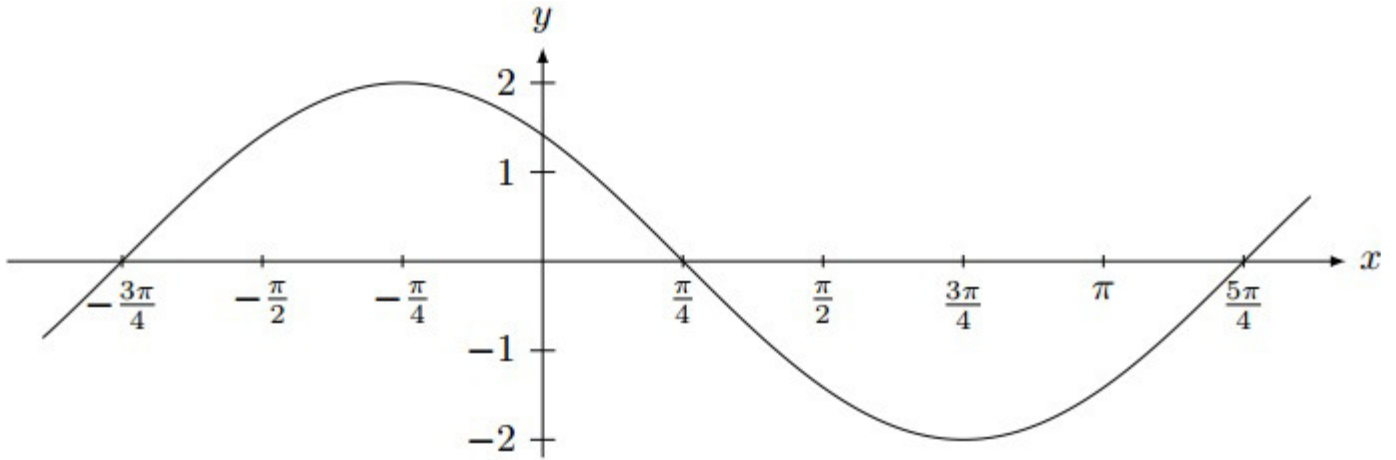
- A. $y = 0.5 \cos(4\pi x)$
- B. $y = 0.5 \sin(x/4)$
- C. $y = 0.5 \sin(4x)$
- D. $y = 0.5 \cos(4x)$

27. Which of the functions below correspond to the given graph?



- A. $y = \sin(x/2 - 1/4)$
- B. $y = \sin(\pi x/2 - \pi/4)$
- C. $y = \cos(\pi x/2 - \pi/4)$
- D. $y = \sin(\pi x/2)$

28. What is the period of the graph below?



- A. $5\pi/4$
- B. $\pi/4$
- C. π
- D. 2π

ANSWER

1. D	2. D	3. C	4. B	5. C	6. A	7. B	8. B
9. D	10. D	11. A	12. B	13. D	14. C	15. C	16. B
17. C	18. D	19. D	20. A	21. D	22. C	23. C	24. A
25. B	26. C	27. B	28. D				