

## ECAT Mathematics Chapter 13 Trigonometric Functions and their Graphs Online Test

Sr	Questions	Answers Choice
1	The period of $\cot 8x$ is	A. $\pi/10$ B. $9\pi/7$ C. $\pi/9$ D. $\pi/8$
2	The period of $\sin x/2 = \cos x/3$ is	A. $2\pi$ B. $12\pi$ C. $13\pi$ D. $7\pi$
3	What is the period of $\sin 2x/3 \cos 4x$ ?	A. $\pi$ B. $2\pi$ C. $\pi/2$ D. $\pi/3$
4	What is the period of $\tan 4/3 x$ ?	A. $\pi/4$ B. $4\pi/3$ C. $7\pi/4$ D. $3\pi/4$
5	What is the period of $\cos 6x$ ?	A. $\pi/2$ B. $\pi/3$ C. $\pi/4$ D. $\pi$
6	What is the period of $6 \sin x$ ?	A. $\pi$ B. $-\pi$ C. $\pi/2$ D. $2\pi$
7	What is the period of $5 \cot x$ ?	A. $\pi$ B. $-\pi$ C. $\pi/2$ D. $2\pi$
8	The period of the function $\csc x/4$ is	A. $4x$ B. $\pi/4$ C. $8\pi$ D. $\pi/8$
9	The range of the tangent function is	A. all real numbers B. $-1 \leq x \leq 1$ C. natural number D. $z \leq \sup + \infty$
10	$2\pi$ is the period of	A. $\sin x$ B. $\tan x$ C. $\cot x$ D. all circular function
11	Tangent is .....function	A. Inverse B. one-one C. in-to D. Periodic
12	The period of $3 \sin x$ is	A. $2\pi$ B. $9\pi$ C. $3\pi$ D. $5\pi$
13	The period of $\cos(7x-5)$ is	A. $\pi/7$ B. $7\pi/2$ C. $\pi/2$ D. $2\pi/7$
14	The period of $ \sin 2x $ is	A. $\pi/2$ B. $-\pi/2$ C. $\pi$ D. $\pi/3$
15	The period of $ \sin 2x $ is	A. $\pi/2$ B. $-\pi/2$ C. $\pi$ D. $\pi/3$

16	The period of $2 \cos x$ is	<p>A. <math>30\pi</math></p> <p>B. <math>7\pi</math></p> <p>C. <math>5\pi</math></p> <p>D. <math>2\pi</math></p>
17	The period of $\tan x/7$ is	<p>A. <math>3\pi</math></p> <p>B. <math>7\pi</math></p> <p>C. <math>15\pi</math></p> <p>D. <math>5\pi</math></p>
18	Sine is a periodic function and its period is _____	<p>A. <span style='font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 224);'>&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span></p> <p>B. s</p> <p>C. <span style='font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span></p> <p>D. <div style="text-align: start;">&lt;span style="text-align: center; background-color: rgb(255, 255, 255);"&gt;4&lt;/span&gt;&lt;i style="text-align: center;"&gt;<math>\pi</math>&lt;/i&gt;&lt;/div&gt;</div></p>
19	Tangent is a periodic function and its period is _____	<p>A. <span style='font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span></p> <p>B. <span style='font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span></p> <p>C. <span style='font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span></p> <p>D. <span style='font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span></p>
20	The period of $\tan [x/3]$ is _____	<p>A. <span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span></p> <p>B. <div style="text-align: start;">&lt;div style="text-align: start;"&gt;&lt;span style="text-align: center; background-color: rgb(255, 255, 255);"&gt;4&lt;/span&gt;&lt;i style="text-align: center;"&gt;<math>\pi</math>&lt;/i&gt;&lt;/div&gt;</div></p> <p>C. <div style="text-align: start;">&lt;div style="text-align: start;"&gt;&lt;span style="text-align: center; background-color: rgb(255, 255, 255);"&gt;3&lt;/span&gt;&lt;i style="text-align: center;"&gt;<math>\pi</math>&lt;/i&gt;&lt;/div&gt;</div></p> <p>D. <span style='font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\pi</math>&lt;/i&gt;</span></p>
21	The period of $\operatorname{cosec} 10x$ is _____	<p>A. <math>-\sin</math><span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\theta</math>&lt;/i&gt;</span></p> <p>B. <math>-\tan</math><span style='color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);'>&gt;&lt;i&gt;<math>\theta</math>&lt;/i&gt;</span></p>

22	$\tan(\pi - \theta) = \underline{\hspace{2cm}}$	<p>A. <math>\sin \theta</math></p> <p>B. <math>-\sin \theta</math></p> <p>C. <math>-\cos \theta</math></p> <p>D. <math>-\cot \theta</math></p>
23	The Domain of $y = \sin x$ is _____	<p>A. Set of real numbers</p> <p>B. Rational</p> <p>C. Irrational no.</p> <p>D. None of above</p>
24	The range of $y = \sin x$ is _____	<p>A. [1, -1]</p> <p>B. [-1, 1]</p> <p>C. [0, -1]</p> <p>D. [-1, 1]</p>
25	Domain of $y = \cot x = \underline{\hspace{2cm}}$	<p>A. <math>x \neq n\pi</math></p> <p>B. <math>x \neq (2n+1)\pi</math></p> <p>C. <math>x \neq (2n-1)\pi</math></p> <p>D. <math>x \neq n\pi/2</math></p>
26	The range of $y = \cot x = \underline{\hspace{2cm}}$	<p>A. <math>x \neq n\pi</math></p> <p>B. <math>x \neq (2n+1)\pi</math></p> <p>C. <math>x \neq (2n-1)\pi</math></p> <p>D. <math>x \neq n\pi/2</math></p>
27	Domain of tangent function is	<p>A. [1, 0]</p> <p>B. [-1, 1]</p> <p>C. [0, 1]</p> <p>D. [-1, 2]</p>
28	The function sine and Cosine have the closed interval as their range	<p>A. <math>\pi</math></p> <p>B. <math>-\pi</math></p> <p>C. 0</p> <p>D. <math>-2\pi</math></p>
29	Period of Cotangent function is	<p>A. <math>0^\circ</math></p> <p>B. <math>90^\circ</math></p> <p>C. <math>180^\circ</math></p> <p>D. <math>270^\circ</math></p>

$\pi$

C.  $\pi$

D.  $2\pi$