

ECAT Mathematics Chapter 13 Trigonometric Functions and their Graphs Online Test

Sr	Questions	Answers Choice
1	The period of the trigonometric function $y = \sin x \cos x$ is _____	A. 2π B. π C. 4π D. $\pi / 2$
2	The number of x -intercepts of $y = \sin x$ in his period	A. 0 B. 1 C. 2 D. 3
3	graph of sine function is bounded between lines _____	A. $y \pm 1 = 0$ B. $x \pm 1 = 0$ C. $x \pm y = 0$ D. None of these
4	graph of trigonometric function $y = \sec x$ does not meet _____	A. x - axis B. y - axis C. both axis D. None of these
5	Domain of $\sin x$ is _____	
6	Domain of $\operatorname{cosec} x$ is _____	
7	Domain of $\cos x$ is _____	
8	Domain of $\sec x$ is _____	
9	Domain of $\tan x$ is _____	
10	Domain of $\cot x$ is _____	
11	Range of $\sin x$ is _____	A. $[-1, 1]$ B. R C. Negative real numbers D. None of these
12	Range of $\operatorname{cosec} x$ is _____	A. $\{-1, 1\}$ B. R C. Negative real numbers D. $R - \{x -1 < x < 1\}$
13	Range of $\cos x$ is _____	A. $[-1, 1]$ B. R C. Negative real numbers D. $R - \{x -1 < x < 1\}$
14	Range of $\sec x$ is _____	A. $[-1, 1]$ B. R C. Negative real numbers D. $R = \{x -1 < x < 1\}$
15	Range of $\tan x$ is _____	A. $[-1, -]$ B. R C. Negative real numbers D. $R - \{x -1 < x < 1\}$
16	Range of $\cot x$ is _____	A. $[-1, 1]$ B. R C. Negative real numbers D. $R - \{x -1 < x < 1\}$
17	Period of $\sin x$ is _____	
18	Period of $\cos x$ is _____	
19	Period of $\tan x$ is _____	
20	Period of $\operatorname{cosec} x$ is _____	
21	Period of $\sec x$ is _____	
22	Period of $\cot x$ is _____	

- 23 Period of $\sin 3x$ is _____
- 24 Period of $\cos 2x$ is _____
- 25 Period of $\tan 4x$ is _____
- 26 Question Image
- 27 Question Image
- 28 Question Image
- 29 Period of $3 \sin x$ is _____
- 30 Period of $2 \cos x$ is _____
- 31 Question Image
- 32 Domain of $3 \sin x$ is _____
- A. $[-3, 3]$
B. \mathbb{R}
C. Positive real numbers
D. None of these
- 33 Domain of $2 \cos x$ is _____
- A. $[-2, 2]$
B. \mathbb{R}
C. Negative real numbers
D. None of these
- 34 Range of $2 \tan x$ is _____
- A. $[-2, 2]$
B. $-1 < x < 1$
C. \mathbb{R}
D. None of these
- 35 Range of $3 \sin x$ is _____
- A. $[-3, 3]$
B. $[-1, 1]$
C. \mathbb{R}
D. None of these
- 36 Range of $3 \cot x$ is _____
- A. $[-1, 1]$
B. $[-3, 3]$
C. \mathbb{R}
D. None of these
- 37 A function $f(x)$ is said to be the periodic function if for all x in the domain of f , there exists a smallest positive number p such the $f(x + p) =$ _____
- A. $f(p)$
B. $f(x)$
C. $f(0)$
D. None of these
- 38 Domain of $\sin \theta$ is
- A. Set of real numbers
B. Set of complex numbers
C. Set of natural numbers
D. Set of even numbers
- 39 Domain of $\cos \theta$ is
- A. Set of odd numbers
B. Set of integers
C. Set of real numbers
D. Set of complex numbers
- 40 Range of $\sin \theta$ is
- 41 Range of $\cos \theta$ is
- 42 Domain of $\cot \theta$ is
- 43 Range of $\tan \theta$ is
- A. Set of complex numbers
B. Set of real numbers
C. Set of odd numbers
D. Set of positive integers only
- 44 Range of $\cot \theta$ is
- A. $(-\infty, \infty)$
B. $(-1, 1)$
C. $(-5, 5)$
D. Set of even numbers only
- 45 Domain of $\sec \theta$ is

46	Domain of cosec θ is	A. Z - {x -1 < x < 1} B. W - {x -1 < x < 1} C. R - {x -1 < x < 1} D. R
47	Range of sec θ is	A. W - {y -1 < y < 1} B. R - {y -1 < y < 1} C. O - {y -1 < y < 1} D. R
48	Range of cosec θ is	A. <i>π</i> B. 2 <i>π</i> C. - <i>π</i> D. -2 <i>π</i>
49	Period of Sine and Cosine function is	A. 0° B. - <i>π</i> C. <i>π</i> D. -2 <i>π</i>
50	Period of Tangent function is	A. 0° B. - <i>π</i> C. <i>π</i> D. 2 <i>π</i>
51	Period of Cotangent function is	A. π B. -π C. 0 D. -2π
52	The function sine and Cosine have the closed internal as their range	A. [1, 0] B. [-1, 1] C. [0, 1] D. [-1, 2]
53	Domain of tangent function is	A. - <i>∞</i> > y > + <i>∞</i> B. - span style="font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 248);"><i>∞</i> < <i>∞</i>
54	The range of $y = \cot x =$	A. - <i>∞</i> > y > + <i>∞</i> B. - span style="font-family: "Times New Roman"; font-size: 24px; color: rgb(34, 34, 34); text-align: center; background-color: rgb(255, 255, 248);"><i>∞</i> < <i>∞</i>

- 55 Domain of $y = \cot x$ = _____
- A. [1, -1]
B. [-1, 1]
C. [0, -1]
D. - <i>∞</i>
E. - <i>∞ < /i>
F. - <i>∞ < /i>
G. - <i>∞ < /i>
H. None of above
-
- 56 The range of $y = \sin x$ is _____
- A. [1, -1]
B. [-1, 1]
C. [0, -1]
D. - <i>∞</i>+<i>∞</i>
-
- 57 The Domain of $y = \sin x$ is _____
- A. Set of real numbers
B. Rational
C. Irrational no.
D. None of above
-
- 58 $\tan(\pi - \theta) =$ _____
- A. - sin<i>θ</i>
B. - tan<i>θ</i>
C. - cos<i>θ</i>
D. - cot<i>θ</i>
-
- 59 The period of cosec $10x$ is _____
- A. 2<i>π</i>
B. <div style="text-align: start;">4<i style="text-align: center;">π</i></div>
C. <div style="text-align: start;">3<i style="text-align: center;">π</i></div>
D. 5<i>π</i>
-
- 60 The period of $\tan(\frac{x}{3})$ is _____

- 61 Tangent is a periodic function and its period is _____
- A. 2π
B. 3π
C. π
D. 4π
- 62 Sine is a periodic function and its period is _____
- A. π
B. s
C. 2π
D. 4π
- 63 The period of $\tan x/7$ is
- A. 3π
B. 7π
C. 15π
D. 5π
- 64 The period of $2 \cos x$ is
- A. 30π
B. 7π
C. 5π
D. 2π
- 65 The period of $|\sin 2x|$ is
- A. $\pi/2$
B. $-\pi/2$
C. π
D. $\pi/3$
- 66 The period of $|\sin 2x|$ is
- A. $\pi/2$
B. $-\pi/2$
C. π
D. $\pi/3$
- 67 The period of $\cos(7x-5)$ is
- A. $\pi/7$
B. $7\pi/2$
C. $\pi/2$
D. $2\pi/7$
- 68 The period of $3 \sin x$ is
- A. 2π
B. 9π
C. 3π
D. 5π
- 69 Tangent isfunction
- A. Inverse
B. one-one
C. in-to
D. Periodic
- 70 2π is the period of
- A. $\sin x$
B. $\tan x$
C. $\cot x$
D. all circular function
- 71 The range of the tangent function is
- A. all real numbers
B. $-1 \leq x \geq 1$
C. natural number
D. $z^+ +$

72	The period of the function $\csc x/4$ is	A. $4x$ B. $\pi/4$ C. 8π D. $\pi/8$
73	What is the period of $5 \cot x = ?$	A. π B. $-\pi$ C. $\pi/2$ D. 2π
74	What is the period of $6 \sin x = ?$	A. π B. $-\pi$ C. $\pi/2$ D. 2π
75	What is the period of $\cos 6x = ?$	A. $\pi/2$ B. $\pi/3$ C. $\pi/4$ D. π
76	What is the period of $\tan 4/3 x = ?$	A. $\pi/4$ B. $4\pi/3$ C. $7\pi/4$ D. $3\pi/4$
77	What is the period of $\sin 2x/3 \cos 4x = ?$	A. π B. 2π C. $\pi/2$ D. $\pi/3$
78	The period of $\sin x/2 = \cos x/3$ is	A. $2p$ B. $12p$ C. $13p$ D. $7p$
79	The period of $\cot 8x$ is	A. $\pi/10$ B. $9\pi/7$ C. $\pi/9$ D. $\pi/8$
80	The period of the trigonometric function $y = \sin x \cos x$ is	A. 2π B. π C. 4π D. $\pi/2$
81	The number of x -intercepts of $y = \sin x$ in his period	A. 0 B. 1 C. 2 D. 3
82	graph of sine function is bounded between lines	A. $y \pm 1 = 0$ B. $x \pm 1 = 0$ C. $x \pm y - 0$ D. None of these
83	graph of trigonometric function $y = \sec x$ does not meet	A. x - axis B. y - axis C. both axis D. None of these
84	Domain of $\sin x$ is _____	
85	Domain of $\csc x$ is _____	
86	Domain of $\cos x$ is _____	
87	Domain of $\sec x$ is _____	
88	Domain of $\tan x$ is _____	
89	Domain of $\cot x$ is _____	
90	Range of $\sin x$ is _____	A. $[-1, 1]$ B. R C. Negative real numbers D. None of these
91	Range of $\csc x$ is _____	A. $\{-1, 1\}$ B. R C. Negative real numbers D. $R - \{x -1 < x < 1\}$
92	Range of $\cos x$ is _____	A. $[-1, 1]$ B. R C. Negative real numbers D. $R - \{x -1 < x < 1\}$

- 93 Range of $\sec x$ is _____
A. $[-1, -]$
B. \mathbb{R}
C. Negative real numbers
D. $\mathbb{R} = \{x \mid -1 < x < 1\}$
- 94 Range of $\tan x$ is _____
A. $[-1, 1]$
B. \mathbb{R}
C. Negative real numbers
D. $\mathbb{R} - \{x \mid -1 < x < 1\}$
- 95 Range of $\cot x$ is _____
A. $[-1, 1]$
B. \mathbb{R}
C. Negative real numbers
D. $\mathbb{R} - \{x \mid -1 < x < 1\}$
- 96 Period of $\sin x$ is _____
- 97 Period of $\cos x$ is _____
- 98 Period of $\tan x$ is _____
- 99 Period of $\cosec x$ is _____
- 100 Period of $\sec x$ is _____
- 101 Period of $\cot x$ is _____
- 102 Period of $\sin 3x$ is _____
- 103 Period of $\cos 2x$ is _____
- 104 Period of $\tan 4x$ is _____
- 105 Question Image
- 106 Question Image
- 107 Question Image
- 108 Period of $3 \sin x$ is _____
- 109 Period of $2 \cos x$ is _____
- 110 Question Image
- 111 Domain of $3 \sin x$ is _____
A. $[-3, 3]$
B. \mathbb{R}
C. Positive real numbers
D. None of these
- 112 Domain of $2 \cos x$ is _____
A. $[-2, 2]$
B. \mathbb{R}
C. Negative real numbers
D. None of these
- 113 Range of $2 \tan x$ is _____
A. $[-2, 2]$
B. $-1 < x < 1$
C. \mathbb{R}
D. None of these
- 114 Range of $3 \sin x$ is _____
A. $[-3, 3]$
B. $[-1, 1]$
C. \mathbb{R}
D. None of these
- 115 Range of $3 \cot x$ is _____
A. $[-1, 1]$
B. $[-3, 3]$
C. \mathbb{R}
D. None of these
- 116 A function $f(x)$ is said to be the periodic function if for all x in the domain of f , there exists a smallest positive number p such the $f(x + p) =$ _____
A. $f(p)$
B. $f(x)$
C. $f(0)$
D. None of these
- 117 Domain of $\sin \theta$ is _____
A. Set of real numbers
B. Set of complex numbers
C. Set of natural numbers
D. Set of even numbers
- 118 Domain of $\cos \theta$ is _____
A. Set of odd numbers
B. Set of integers
C. Set of real numbers
D. Set of complex numbers
- 119 Range of $\sin \theta$ is _____

120	Range of $\cos\theta$ is	
121	Domain of $\cot\theta$ is	
122	Range of $\tan\theta$ is	A. Set of complex numbers B. Set of real numbers C. Set of odd numbers D. Set of positive integers only
123	Range of $\cot\theta$ is	A. (+∞, -∞) B. (-1 to +1) C. (-5 to +5) D. Set of even numbers only
124	Domain of $\sec\theta$ is	
125	Domain of $\operatorname{cosec}\theta$ is	
126	Range of $\sec\theta$ is	A. $Z - \{x \mid -1 < x < 1\}$ B. $W - \{x \mid -1 < x < 1\}$ C. $R - \{x \mid -1 < x < 1\}$ D. R
127	Range of $\operatorname{cosec}\theta$ is	A. $W - \{y \mid -1 < y < 1\}$ B. $R - \{y \mid -1 < y < 1\}$ C. $O - \{y \mid -1 < y < 1\}$ D. R
128	Period of Sine and Cosine function is	A. $<\pi>$ B. $2<\pi>$ C. $-<\pi>$ D. $-2<\pi>$
129	Period of Tangent function is	A. 0° B. $<\pi>$ C. $<\pi>$ D. $2<\pi>$
130	Period of Cotangent function is	A. π B. $-\pi$ C. 0

		D. -2π
131	The function sine and Cosine have the closed internal as their range	A. [1, 0] B. [-1, 1] C. [0, 1] D. [-1, 2]
132	Domain of tangent function is	A. -<i> ∞ </i>> y > +<i> ∞ </i> B. -<i> ∞ </i>> x > +<i> ∞ </i> C. <i> ∞ <</i>y < +<i> ∞ </i> D. None of above
133	The range of $y = \cot x = \underline{\hspace{2cm}}$	A. [1, -1] B. [-1, 1] C. [0, -1] D. [-<i> ∞ </i>+<i> ∞ </i>]
134	Domain of $y = \cot x = \underline{\hspace{2cm}}$	A. Set of real numbers B. Rational C. Irrational no. D. None of above
135	The range of $y = \sin x$ is $\underline{\hspace{2cm}}$	A. - sin<i>0</i> B. - tan<i>0</i> C. - cos<i>0</i> D. - cot<i>0</i>
136	The Domain of $y = \sin x$ is $\underline{\hspace{2cm}}$	A. - sin<i>0</i> B. - tan<i>0</i> C. - cos<i>0</i> D. - cot<i>0</i>
137	$\tan(\pi - \theta) = \underline{\hspace{2cm}}$	A. 1 B. -1 C. 0 D. 2

138 The period of cosec $10x$ is _____

- A. 2<i>π</i>
B. <div style="text-align: start;">"4<i style="text-align: center;">π</i></div>
C. <div style="text-align: start;">"3<i style="text-align: center;">π</i></div>
D. 5<i>π</i>

139 The period of $\tan [x/3]$ is _____

- A. 2<i>π</i>
B. 3<i>π</i>
C. <i>π</i>
D. 4<i>π</i>

140 Tangent is a periodic function and its period is _____

- A. <i>π</i>
B. s

141 Sine is a periodic function and its period is _____

- C. 2<i>π</i>
D. <div style="text-align: start;">"4<i style="text-align: center;">π</i></div>

142 The period of $\tan x/7$ is

- A. 3π
B. 7π
C. 15π
D. 5π

143 The period of $2 \cos x$ is

- A. 30π
B. 7π
C. 5π
D. 2π

144 The period of $|\sin \frac{x}{2}|$ is

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

145 The period of $|\sin \frac{x}{2}|$ is

- A. $\pi/2$
B. $-\pi/2$

		C. π D. $\pi/3$
146	The period of $\cos(7x-5)$ is	A. $\pi/7$ B. $7\pi/2$ C. $\pi/2$ D. $2\pi/7$
147	The period of $3 \sin x$ is	A. 2π B. 9π C. 3π D. 5π
148	Tangent isfunction	A. Inverse B. one-one C. in-to D. Periodic
149	2π is the period of	A. \sin B. \tan C. \cot D. all circular function
150	The range of the tangent function is	A. all real numbers B. $-1 \leq x \geq 1$ C. natural number D. $z > +$
151	The period of the function $\csc x/4$ is	A. $4x$ B. $\pi/4$ C. 8π D. $\pi/8$
152	What is the period of $5 \cot x = ?$	A. π B. $-\pi$ C. $\pi/2$ D. 2π
153	What is the period of $6 \sin x = ?$	A. π B. $-\pi$ C. $\pi/2$ D. 2π
154	What is the period of $\cos 6x = ?$	A. $\pi/2$ B. $\pi/3$ C. $\pi/4$ D. π
155	What is the period of $\tan 4/3 x = ?$	A. $\pi/4$ B. $4\pi/3$ C. $7\pi/4$ D. $3\pi/4$
156	What is the period of $\sin 2x/3 \cos 4x = ?$	A. π B. 2π C. $\pi/2$ D. $\pi/3$
157	The period of $\sin x/2 = \cos x/3$ is	A. $2p$ B. $12p$ C. $13p$ D. $7p$
158	The period of $\cot 8x$ is	A. $\pi/10$ B. $9\pi/7$ C. $\pi/9$ D. $\pi/8$