

ECAT Pre General Science Mathematics Chapter 15 Inverse Trigonometric Functions Online Test

Sr	Questions	Answers Choice
1	The exact value of $\cos^{-1}(-1) + \cos^{-1}(1)$ =	A. π B. $-\pi$ C. $\pi/2$ D. $\pi/3$
2	The exact value of $\cos^{-1}(0)$ is	A. $\pi/2$ B. $-\pi/2$ C. 3π D. $\pi - \pi/6$
3	$\cos^{-1} 12/13 =$	A. $\tan^{-1} 3/5$ B. $\cot^{-1} 13/12$ C. $\sec^{-1} 13/12$ D. $\sin^{-1} 5/13$
4	$\cos^{-1}(\cos x) =$	A. x B. $\cos x$ C. $x = 1/x$ D. $\cos^{-2} x$
5	$\cos^{-1}(x) =$	A. $\cos x$ B. x C. $\tan^{-1}(-x)$ D. $\sec^{-1}(1/x)$
6	$\cos^{-1}(-x) =$	A. $-x$ B. $1/x$ C. $\tan^{-1} x$ D. $\pi - \cos^{-1} x$
7	If $\pi \leq x \leq 2\pi$, then $\cos^{-1}(\cos x) =$	A. $\cos x$ B. $-x$ C. $1/x$ D. $-x$
8	If $\cos(2 \sin^{-1} x) = 1/9$, then what is the value of x ?	A. $1/3$ B. $-2/3$ C. $2/3$ D. $2/3, -2/3$
9	$\cos(\cos 4\pi/3) =$	A. $\pi/2$ B. $\pi/3$ C. $2\pi/3$ D. $-\pi/3$
10	The exact degree value of the function $\sin^{-1}(-\sqrt{3}/2)$ is	A. 70° B. 50° C. 90° D. 60°
11	What is the value of $\cos(\cos^{-1} 2)$?	A. $\sqrt{2}$ B. $1/2$ C. undefined D. 0
12	The value of $\cos(\cos^{-1} 1/2)$ is	A. $1/2$ B. $\sqrt{3}/2$ C. $-1/2$ D. $1/\sqrt{2}$
13	What is the value of $\cos^{-1}(1/2)$?	A. $\pi/3$ B. $\pi/4$ C. $3\pi/2$ D. $\pi/6$
14	$\sin^{-1} x =$	A. $\tan^{-1} x$ B. $\operatorname{cosec}^{-1} x$ C. $\operatorname{cosec} x$ D. $\operatorname{cosec}^{-1}(1/x)$
15	$\sin^{-1}(-x) =$	A. x B. $-x$ C. $-\sin^{-1} x$

D. $\cos^{-1} x$

- 16 $\sin^{-1}(\sin 2\pi/3) =$
A. $\pi/2$
B. $2\pi/3$
C. $-3\pi/2$
D. $\pi/3$
- 17 $\sin^{-1}(2\sin 10.8)$
A. 0.56
B. 0.69
C. -0.16
D. 0.96
- 18 $\sin^{-1} x =$
A. $\sin(\pi/2-x)$
B. $\sin^{-1}(\pi/2-x)$
C. $\pi/2 - \cos^{-1} x$
D. $\pi/2 + \cos^{-1} x$
- 19 $\sin(\sin^{-1}(1/2)) =$
A. 0
B. 2
C. ∞
D. $1/2$
- 20 The principal value of $\sin^{-1}[-\sqrt{3}/2]$ is
A. $5\pi/3$
B. $-2\pi/3$
C. 
D. $\pi/3$
- 21 The value of $\sin^{-1} 24/25$ is equal to
A. $\csc^{-1} 25/24$
B. $\sec^{-1} 24/25$
C. $2 \tan^{-1} 4/5$
D. $2 \cos^{-1} 24/25$
- 22 The value of $\sin^{-1} 5/13$ is equal to
A. $\cos 5/13$
B. $\tan^{-1} 5/12$
C. $\cos^{-1} 5/12$
D. $2 \cos^{-1} 5/13$
- 23 The Principal value of $\sin^{-1}(-1/2)$
A. $\pi/2 < o:p></o:p>$
B. $-\pi/2 < o:p></o:p>$
C. $\pi < o:p></o:p>$
D. $-\pi < o:p></o:p>$
- 24 In the interval $0 \leq x \leq \pi$, the sine is
A. Not a function
B. Not defined
C. Infinity
D. Not one-to-one function
- 25 $x = \sin^{-1} 3$, then the value of $\sin x$ is
A. $\sqrt{3}/2$
B. 3
C. Not possible
D. -1
- 26 The domain of the function $y = \sin x$, is
A. $-\pi/2 \leq x \leq \pi/2$
B. $\pi/2 \leq x \leq \pi$
C. $-2\pi \leq x \leq 2\pi$
D. $-1 \leq x \leq 1$
- 27 The principal value of $\sin^{-1}(-1/2)$
A. $\pi/3$
B. $\pi/4$
C. $\pi/6$
D. $-\pi/6$
- 28 The principal value of $\sin^{-1}(\sqrt{3}/2)$ is
A. $-\pi/3$
B. $\pi/3$
C. $2\pi/3$
D. $\pi/2$
- 29 $\sec^{-1} x =$
A. $\cos^{-1} 1/x$
B. $\operatorname{cosec}^{-1} 1/x$
C. $\cos^{-1}(-x)$
D. $\tan^{-1} x$
- 30 $\sin^{-1}(-x) =$
A. $\cos^{-1} 1/x$
B. $-\sin^{-1} x$
C. $\cot^{-1} 1/x$
D. None of these