

ECAT (Pre-Eng) Mathematics Chapter 12 Trigonometric Functions and Identities

Sr	Questions	Answers Choice
1	The circle with are 60 cm^2 has an arc 8 cm long. The angle that is subtended at the centre of the circle by the are is	A. 1.83 radians B. 2.1 radians C. 1.05 radians D. 1.25 radians
2	the value of $25\pi/36$ in degrees is	A. 120° B. 125° C. 60° D. 115°
3	The value of 63° in term of π is	A. $5\pi/2$ B. $5\pi/3$ C. $7\pi/20$ D. $7\pi/3$
4	The area of a sector of a circular region of radius r is	A. $2\pi r$ B. πr^2 C. $\frac{1}{2}\pi r^2$ D. $\pi/6$
5	If $\sin\theta = 12/13$, and $\sin\theta > 0$, then $\tan\theta =$	A. $2/5$ B. $12/13$ C. $13/5$ D. $12/5$
6	Express $\cos 320^\circ$ between 0° and 45°	A. $\cos 45^\circ$ B. $\cos 30^\circ$ C. $-\cos 40^\circ$ D. $\cos 40^\circ$
7	The circular measure of the angle between the hands of a watch of 4 O'clock is	A. $\pi/2$ B. $\pi/4$ C. $2\pi/3$ D. $\pi/6$
8	if $\tan\theta = 8/15$ and $\cos\theta < 0$, then $\csc\theta =$	A. $-8/15$ B. $15/8$ C. $3/15$ D. $-17/8$
9	The value of 150° in term of π is	A. $2\pi/5$ B. $5\pi/2$ C. $3\pi/2$ D. $2550/32401\pi$
10	$16^\circ 30' =$	A. 16.5° B. 16.2° C. 16.60° D. 19.9°
11	The value of 300° in term of π is	A. $5\pi/3$ B. $2\pi/3$ C. $5\pi/2$ D. 5π
12	The value of 289° in radians is	A. 4.05 B. 3.02 C. $\frac{1}{2}\pi$ D. $\frac{1}{3}\pi$

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D. 5.04

13	If $x > 0$ and $y < 0$, then $\cos \theta$	A. Positive B. negative C. zero D. infinity
14	If $l = 1.5$ cm and $r = 2.5$ cm, then $\theta =$	A. .3 radians B. .20 radians C. .5 radians D. .6 radians
15	If $\sin \theta = 12/13$, and $\sin \theta > 0$, then $\tan \theta =$	A. 2/5 B. 12/13 C. 13/5 D. 12/5
16	If $\cos \theta = 9/41$ and $\sin \theta < 0$, the $\tan \theta =$	A. 41/9 B. -40/9 C. 9/10 D. 3/20
17	$154^\circ 20' =$	A. $2550/34401\pi$ B. $27721/22400\pi$ C. $2521/32400\pi$ D. $4125/32400\pi$
18	Express $\cos 320^\circ$ between 0° and 45°	A. $\cos 45^\circ$ B. $\cos 30^\circ$ C. $-\cos 40^\circ$ D. $\cos 40^\circ$
19	$56^\circ = \dots\dots\dots$ radians	A. 1.25 B. 2.56 C. 95 D. 0.98
20	The value of $2\pi/3$ in degree is	A. 120 B. 160 C. 150 D. 60