

ECAT Mathematics Chapter 12 Trigonometric Functions and Identities Online Test

Sr	Questions	Answers Choice
1	Distance between A(3, 8), B(5, 6) is	
2	$\cos(\alpha - \beta) = \cos\alpha\cos\beta + \sin\alpha\sin\beta$ is true for all	A. α B. β C. α D. None of these
3	$\sin(2\pi - \theta)$	A. $\cos\theta$ B. $\sin\theta$ C. $\tan\theta$ D. $-\sin\theta$
4	Which one is a pair of allied angles	A. $180^\circ - \theta$ B. $180^\circ + \theta$ C. $180^\circ + \theta$ D. None of these
5	$2\pi + \theta$ will have terminal side in Quad	A. I B. II C. III D. IV
6	$\cos 315^\circ =$ _____	
7	$\sec(-360^\circ) =$ _____	A. 0 B. 1 C. 2 D. 3
8	$\tan(-135^\circ) =$ _____ θ	A. 0 B. 1 C. 2 D. 3
9	$\sin 540^\circ =$	A. 0 B. 1 C. 2 D. 3
10	$\cos(180^\circ - \theta) =$	A. $\sin\theta$ B. $-\cos\theta$ C. $-\sin\theta$ D. $\cos\theta$

11

Express as a sum or difference: $2 \sin 5\theta \cos \theta$

A. $\cos 4\theta$
 B. $\sin 4\theta$
 C. $\cos 4\theta$
 D. $\sin 4\theta$

12

 $\cos(\alpha + \beta) - \cos(\alpha - \beta) =$

A. $-2 \sin \alpha \sin \beta$
 B. $2 \sin \alpha \sin \beta$
 C. $-2 \sin \alpha \cos \beta$
 D. $4 \sin \alpha \sin \beta$

13

 $\cos(\alpha + \beta) + \cos(\alpha - \beta) =$

A. $4 \cos \alpha \cos \beta$
 B. $2 \cos \alpha \cos \beta$
 C. $2 \sin \alpha \sin \beta$
 D. $4 \sin \alpha \sin \beta$

		center; font-size: 24px; color: rgb(34, 34, 34); text-align: center;">D. $2 \sin \alpha \cos \beta$
14	$\cos^4 \theta - \sin^4 \theta =$	A. $\cos 4\theta$ B. $\cos 2\theta$ C. $-\sin 2\theta$ D. $\sin 2\theta$
15	$\sin^2 \alpha \cos^2 \alpha =$	A. -1 B. 0 C. 1 D. None of these
16	If $\cos \alpha = 4/5$, then $\cos \alpha/2$	
17	$\tan \theta/2$	
18	$\sin 2\alpha =$	
19	$\cos 2\alpha =$	A. $1 - 2 \sin^2 \alpha$ B. $\sin^2 \alpha + \cos^2 \alpha$ C. $\sin^2 \alpha - \cos^2 \alpha$ D. None of these
20	$\sin(\alpha + \beta) - \sin(\alpha - \beta) =$	A. $4 \cos \alpha \sin \beta$ B. $2 \cos \alpha \sin \beta$ C. $4 \cos \alpha \cos \beta$ D. $4 \sin \alpha \sin \beta$

$$\sin (\alpha+\beta) + \sin (\alpha-\beta)$$

A. sin<i>α</i>cos<i>β</i>

B. sin<i>α</i>cos<i>β</i>

C. sin<i>α</i>cos<i>β</i>

D. sin<i>α</i>cos<i>β</i>

$$\sin (\alpha -\beta)=$$

A. sin<i>α</i>
 cos<i>β</i>

23 $\sin(\alpha + \beta) =$

$\sin(\alpha + \beta) = \sin\alpha \cos\beta + \cos\alpha \sin\beta$

A. $\sin\alpha \cos\beta + \cos\alpha \sin\beta$
 B. $\sin\alpha \sin\beta + \cos\alpha \cos\beta$
 C. $\sin\alpha \sin\beta - \cos\alpha \cos\beta$
 D. $\sin\alpha \cos\beta - \cos\alpha \sin\beta$

24 $\tan 2\theta =$

25 $\cos \frac{\theta}{2} =$

26 $\sin \alpha =$

A. $2 \sin \frac{\alpha}{2} \cos \frac{\alpha}{2}$
 B. $2 \sin \frac{\alpha}{2} \sin \frac{\alpha}{2}$
 C. $2 \cos \frac{\alpha}{2} \sin \frac{\alpha}{2}$
 D. $1 + \tan^2 \frac{\alpha}{2}$

A. $\cos \alpha \cos \beta + \sin \alpha \sin \beta$
 B. $\cos \alpha \sin \beta + \sin \alpha \cos \beta$
 C. $\cos \alpha \sin \beta - \sin \alpha \cos \beta$
 D. $\cos \alpha \cos \beta - \sin \alpha \sin \beta$

27 $\sin(180^\circ - \theta) =$

rgb(255, 255, 248);"><i>0</i>
 B. -cos<i>0</i>
 C. Tan<i>0</i>
 D. Sin<i>0</i>

28 $\cos 2\alpha =$

A. $\sin^2\alpha + \cos^2\alpha$
 B. $-\cos^2\alpha$
 C. $\tan^2\alpha$
 D. None of these

29 Question Image

A. $-\sin\theta$
 B. $\cos\theta$
 C. $\sin\theta$
 D. $-\cos\theta$

30 $\tan(\alpha - \beta) =$