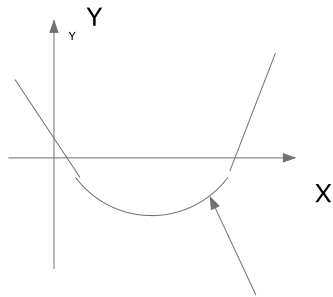


E050 Online Test

Ref108

Axis of symmetry , X axis crossing point and Y axis crossing point of the given graph are



$$Y = 2 X^2 - 12X + 3$$

A	(3,-5)(0,3)(5.5,0.5)	B	(5,-3)(3,0) (0.5,5.5)
C	(0,0)(3,3)(5,0.5)	D	(3,-5) (1,2) (5.5,0.5)
Answer			

Ref109

The answer of

$$\int \sin^2 3X dX$$

is

A	$X/3 - \sin 6X + C$	B	$X^2 - \sin 3X + C$
C	$X/2 - 1/12 \sin 6X + C$	D	$X - 12 \sin 6X + C$
Answer			

Ref110

The answer of the following

$$\int \sin 3 X \cos 7X dx \quad \text{is}$$

A	$1/20 \cos 20X + 1/8 \sin 4X$	B	$1/10 \cos 10X - 1/8 \sin 4x$
C	$\cos 10X + \sin X$	D	$-1/20 \cos 10X + 1/8 \cos 4X$
Answer			

Ref114

If $\log_3 81 = X$, then X is

A	3	B	2
C	4	D	1/2
Answer			

Ref115

If an amplifier has an input power at 1.7mw output 5.8 watts. Calculate power gain.

A	35.3	B	70
C	17	D	25
Answer			

Ref116

$\log_{10} K / (K-X) = t$ Find X

A	$X = \frac{K \times 10^t}{10^t - 1}$	B	$X = \frac{K (10^t - 1)}{10^t}$
C	$X = K \times 10^t$	D	$X = \frac{K}{10^t}$
Answer			

Ref119

Find period and angular velocity of

30MHz are

A	$0.033 \mu\text{s} , 188.4 \times 10^6 \text{ rad/s}$	B	$0.33 \mu\text{s} , 188 \times 10^3 \text{ rad/s}$
C	$0.3 \text{ ms} , 188.4 \times 10^3 \text{ rad/s}$	D	$0.3\text{s} , 188.4\text{rad/s}$
Answer			

Ref121

$\cos(\alpha - \beta)$ is equal to

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

Ref122

$\sin(A+B)$

----- is equal to

$\cos(A-B)$

A	$\frac{1+\tan A \tan B}{\tan A + \tan B}$	B	$\frac{\tan A + \tan B}{1+\tan A \tan B}$
C	$\frac{\tan A - \tan B}{1-\tan A \tan B}$	D	$\frac{\tan A - \tan B}{1+\tan A \tan B}$
Answer			

Ref124

If a body undergoes a displacement in 12 km due north followed by a displacement of 5 km due east. Find the displacement and direction.

A	13, 22.6 deg	B	17, 0 deg
C	7, 90 deg	D	13, 90 deg
Answer			

Ref128

$d \cos 3 \theta$

----- is equal to

$d \theta$

A	$-\sin 3 \theta$	B	$-3 \sin 3 \theta$
C	$3 \sin \theta$	D	$\cos 3 \theta$
Answer			

Ref131

$Y = (X+1)^2 (X+3)^3$, dy/dx is equal to

A	$3(X+1)^2 (X+3)^2 + 2(X+3)^3 (X+1)$	B	$(X+1)(X+3)^2 + (X+3)^2 (X+1)^3$
C	$3(X+1)^2 (X+3)^3 + 2(X+3)(X+1)^2$	D	$3(X+2)(X+1) + 3(X+3)(X+1)^2$
Answer			