Question # 8 of 10 (Start time: 12:50:18 PM, 04 June 2021) Total Marks: 1

What is the derivative of $\sin(x^2) + \cos(2x)$?

Select the correct option

Reload Math Equations

- *None of these.*
- $2x\cos(x^2) + 2\sin 2x$
- $2x\cos(x^2) - 2\sin 2x$
- $2x\sin(x^2) + 2\cos 2x$

Click to Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 12:48:34 PM, 04 June 2021) Total Marks: 1

For the curve: f(t) = -2t+3, the instantaneous rate of change of 'f(t)' at 't = a' is _____.

Select the correct option

- -1
- 2
- -2
- 1

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Quiz Start Time: 12:42 PM, 04 June 2021

Question # 6 of 10 (Start time: 12:47:19 PM, 04 June 2021)

Total Marks: 1

Slope of secant line joining points (1,1) and (3,4) is____.

Select the correct option

- 1
- 1.3
- None of these
- 1.5

Click to Save Answer & Move to Next Question

uestion # 5 of 10 (Start time: 12:45:59 PM, 04 June 2021) Total Marks: 1

If $f(x) = \sin^4(x^2)$, then the derivative of $f(x)$ is _____.

elect the correct option

Reload Math Equations

- $x\sin^3(x^2)\cos(x^2)$.
- None of these.
- $8x\sin^3(x^2)\cos(x)$.
- $8x\sin^3(x^2)$.

Question # 4 of 10 (Start time: 12:44:45 PM, 04 June 2021) Total Marks: 1

If in the graph of f(x) , there comes a corner then the function is ------- at that corner.

Select the correct option

- Non differentiable
- Differentiable

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Quiz Start Time: 12:42 PM, 04 June 2021

Question # 3 of 10 (Start time: 12:43:30 PM, 04 June 2021)

Total Marks: 1

$If\ f(x) = 2x\ and\ g(x) = x^2 + 3x,\ then\ the\ derivative\ of\ f(x) \times g(x)\ is$

Select the correct option

Reload Math Equations

- $x^2 + 12.$
- None of these.
- $12x^2 + 6x.$
- $6x^2 + 12x.$

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Quiz Start Time: 12:42 PM, 04 June 2021

Question # 2 of 10 (Start time: 12:43:17 PM, 04 June 2021)

Total Marks: 1

d(5x+4)/dx=.....

Select the correct option

- 2
- 4
- 5
- 9

Click to Save Answer & Move to Next Question

Question # 1 of 10 (Start time: 12:42:30 PM, 04 June 2021) Total Marks: 1

If $f(x) = \cot^5(x^{20})$, then which of the following is true about it

Select the correct option

Reload Math Equations

- None of these
- Its derivative with respect to x is $-100x^{19}\cot^4(x^{20})\cos ec^2(x^{20})$
- Its derivative with respect to x is $x^{19}\cot^4(x^{20})\cos ec^2(x^{20})$
- Its derivative with respect to x is $100x^{19}\cot^4(x^{20})\cos ec^2(x^{20})$

Click to Save Answer & Move to Next Question

MTH101:Quiz 1 Quiz Start Time: 11:57 AM, 04 June 2021

Question # 10 of 10 (Start time: 12:07:01 PM, 04 June 2021) Total Marks: 1

On the geometrical figure like square, the points where the derivative does not exist are -------

Select the correct option

- (●) corners
- ( ) midpoints of its sides
- ( ) midpoints of its diagonals
- ( ) the points of trisection of its sides

Click to Save Answer & Move to Next Question

Question # 9 of 10 (Start time: 12:06:18 PM, 04 June 2021)

If the function is differentiable at a point then it is also _____ at that point.

Select the correct option

- (●) Continuous
- ( ) Not defined

MTH101:Quiz 1

Quiz Start Time: 11:57 AM, 04 June 2021

Question # 8 of 10 (Start time: 12:04:55 PM, 04 June 2021)

Total Marks: 1

If (0,0) and (2,2) are any two pints on a curve then the slope of secant line through these points is

Select the correct option

- 2
- 1
- -1
- -2

Click to Save Answer & Move to Next Question

Question # 8 of 10 (Start time: 12:04:55 PM, 04 June 2021)

Total Marks: 1

If (0,0) and (2,2) are any two pints on a curve then the slope of secant line through these points is

Select the correct option

- 2
- 1
- -1
- -2

Click to Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 12:03:21 PM, 04 June 2021) Total Marks: 1

If y=f(x) then the average rate of change of y with respect to x over the interval [x0,x1] is slope of tangent line joining at (x0,f(x0)).

Select the correct option

- False
- True

Click to Save Answer & Move to Next Question

Question # 6 of 10 (Start time: 12:02:48 PM, 04 June 2021) Total Marks: 1

The derivative of $(x^2+1)^2$ *is* .....

Select the correct option

Reload Math Equations

- $2x$
- $4x^2$
- $4x(x^2+1)$
- $4x(x+1)$

Click to Save Answer & Move to Next Question

Question # 5 of 10 (Start time: 12:02:11 PM, 04 June 2021)

If

$$y = -5x^3 + 4x$$

, then

$$\frac{dy}{dx} = \ldots\ldots\ldots\ldots ?$$

Select the correct option

- ○ $-15x^2 + 4x$
- ● $-15x^2 + 4$
- ○ $15x + 4$
- ○ $15x^2 + 4$

Question # 4 of 10 (Start time: 12:00:51 PM, 04 June 2021) Total Marks: 1

What is the derivative of $2x^2 \sin(x^5)$?

Select the correct option

Reload Math Equations

- None of these
- $10x^2 \cos(x^5)$
- $2x^2 \cos(x^5)$
- $-10x^2 \cos(x^5)$

Click to Save Answer & Move to Next Question

Question # 2 of 10 (Start time: 11:57:20 AM, 04 June 2021) Total Marks: 1

The instantaneous velocity of any object can be represented geometrically by_____

Select the correct option

- both slope of secant and tangent lines.
- the slope of the secant line.
- the slope of the tangent line.
- None of these.

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Quiz Start Time: 11:57 AM, 04 June 2021

Question # 1 of 10 (Start time: 11:57:04 AM, 04 June 2021)

Total Marks: 1

$$\frac{d\,100}{dx} = \ldots\ldots\ldots ?$$

Select the correct option

Reload Math Equations

- ○ 100
- ○ 0.1
- ○ 1
- ● 0

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Quiz Start Time: 11:39 AM, 04 June 2021

Question # 10 of 10 (Start time: 11:46:38 AM, 04 June 2021)

Total Marks: 1

The derivative of y=Cosecx at x=0 is

Select the correct option

- -1
- 1
- Infinity
- 0

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Quiz Start Time: 11:39 AM, 04 June 2021

Question # 9 of 10 (Start time: 11:45:17 AM, 04 June 2021)

Total Marks: 1

To find the slope of tangent line at a particular point along a curve , you have to calculate .....

Select the correct option

- (●) displacement
- ( ) acceleration
- ( ) average velocity
- ( ) instantaneous velocity

Click to Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 11:44:40 AM, 04 June 2021)

Total Marks: 1

The point slope form of the equation of tangent line at the point (x_1, y_1) is _____.

Select the correct option

Reload Math Equations

- $y = mx + c$
- $y - y_1 = m(x - x_1)$

Click to Save Answer & Move to Next Question

Question # 6 of 10 (Start time: 11:43:40 AM, 04 June 2021) Total Marks: 1

What is the derivative of

$$39x^{\frac{14}{13}}$$

Select the correct option

Reload Math Equations

- None of these
- $42x$
- $24x^{\frac{-1}{13}}$
- $42x^{\frac{1}{13}}$

Click to Save Answer & Move to Next Question

Question # 5 of 10 (Start time: 11:43:01 AM, 04 June 2021) Total Marks: 1

$If\ g(x) = 8\tan x - 5\cot x,\ then\ g'(x)\ is$

Select the correct option

Reload Math Equations

- (●) $8sec^2x + 5cosec^2x$
- ( ) $8sec^2x - cosec^2x$
- ( ) $-8sec^2x + 5cosec^2x$
- ( ) $-8sec^2x - cosec^2x$

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Quiz Start Time: 11:39 AM, 04 June 2021

Question # 4 of 10 (Start time: 11:42:07 AM, 04 June 2021)

Total Marks: 1

The graph of function y=2 is a.....line with slope 0,is

Select the correct option

- (●) Vertical
- ( ) Horizontal

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Quiz Start Time: 11:39 AM, 04 June 2021

Question # 3 of 10 (Start time: 11:41:17 AM, 04 June 2021)

Total Marks: 1

$$If\ f(x) = sinx\ and\ g(x) = x^2,\ then\ the\ derivative\ of\ \frac{f(x)}{g(x)}\ is$$

Select the correct option

Reload Math Equations

- $[x^2cos(x) - 2xsin(x)]/x^2$
- None of these.
- $[x^2cos(x) + 2xsin(x)]/x^4$
- $[x^2cos(x) - 2xsin(x)]/x^4$

Click to Save Answer & Move to Next Question

MTH101:Quiz 1

Question # 2 of 10 (Start time: 11:39:44 AM, 04 June 2021)

If in the graph of f(x) , there comes a corner then the function is ------ at that corner.

Select the correct option

- Non differentiable
- Differentiable

Total Marks: 1

Question # 1 of 10 (Start time: 11:39:24 AM, 04 June 2021)

Derivative of absolute value function:
f(x) = Abs(x) = |x| at x = 2 is

Select the correct option

- (●) 2
- ( ) does not exist
- ( ) zero
- ( ) 1

Click to Save Answer & Move to Next Question