

for solutions go to this link-----> <https://youtu.be/1pCwkayMCXo>

Question # 8 of 10 (Start time: 07:35:18 AM, 19 December 2021)

If $(0,0)$ and $(2,2)$ are any two points on a curve then the slope of a line parallel to the secant segment through these points is _____.

Note : if you think that speed of video is slow than increae upto 2x

Select the correct option

<input checked="" type="radio"/>	1
<input type="radio"/>	-2
<input type="radio"/>	2
<input type="radio"/>	-1

Question # 10 of 10 (Start time: 07:21:41 AM, 19 December 2021)

A function $f(x) = x / |x|$ is

Select the correct option

continuous at $x = 1$



not continuous at $x = 1$



Question # 3 of 10 (Start time: 07:23:50 AM, 19 December 2021)

For the curve: $f(t) = -2t+3$, the instantaneous rate of change of ' $f(t)$ ' at ' $t = 1$ ' is -----.

<https://youtu.be/1pCwkayMCXo>

Select the correct option

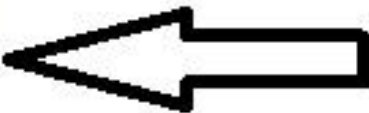
- | | |
|----------------------------------|----|
| <input type="radio"/> | -1 |
| <input type="radio"/> | -2 |
| <input checked="" type="radio"/> | 1 |
| <input type="radio"/> | 2 |

Question # 4 of 10 (Start time: 07:15:03 AM, 19 December 2021)

A function is continuous on an interval if it is continuous of the interval.

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Select the correct option

<input checked="" type="radio"/>	At the end points
<input type="radio"/>	At every point 
<input type="radio"/>	At some points
<input type="radio"/>	None of these

Question # 6 of 10 (Start time: 07:17:18 AM, 19 December 2021)

For the curve $f(t) = -23t + 25$, the slope of the tangent line at point 't = -1' is _____.

-23t+25



▶ Select the correct option



25



-23



-25



23

Question # 7 of 10 (Start time: 07:18:52 AM, 19 December 2021)

The equation of tangent line at the point P(2,3) to the curve $y = 3x^2$ having slope 12 is -----

<https://youtu.be/1pCwkayMCXo>



▶ Select the correct option

$$y + 12x + 21 = 0$$

$$y - 12x - 21 = 0$$

$$y - 12x + 21 = 0$$



None of these.

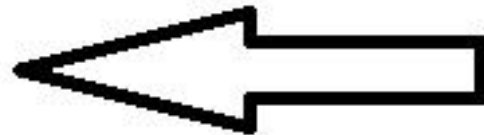
Question # 1 of 10 (Start time: 07:10:58 AM, 19 December 2021)

Is the function $f(x) = \tan(x)$ continuous at $x = \pi$? If not, why?

<https://youtu.be/1pCwkayMCXo>

Select the correct option

<input checked="" type="radio"/>	f is continuous at $x = \pi$.
<input type="radio"/>	$f(\pi)$ is not defined.



Question # 2 of 10 (Start time: 07:12:32 AM, 19 December 2021)

If $y=x^2$ then average rate of change of y with respect to x over the interval $[1, 2]$ is

NOTE: x^n means 'x' to the power 'n'



Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | 1 |
| <input type="radio"/> | 2 |
| <input type="radio"/> | None of these |
| <input checked="" type="radio"/> | 3 |

Question # 3 of 10 (Start time: 07:13:58 AM, 19 December 2021)

Average rate of change in 'y' w.r.t 'x' represents the slope of line on the graph.

<https://youtu.be/1pCwkayMCXo>

Select the correct option

- | | |
|----------------------------------|----------|
| <input checked="" type="radio"/> | secant |
| <input type="radio"/> | parabola |
| <input type="radio"/> | tangent |
| <input type="radio"/> | circle |

Question # 5 of 10 (Start time: 07:16:36 AM, 19 December 2021)

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



Select the correct option



displacement



acceleration



instantaneous velocity



average velocity

Question # 8 of 10 (**Start time: 07:20:24 AM, 19 December 2021**)

ϵ (epsilon) used in the definition of limit can be a negative number.



$\epsilon > 0$, ϵ can't < 0

Select the correct option

<input checked="" type="radio"/>	False
<input type="radio"/>	True

Question # 9 of 10 (Start time: 07:21:07 AM, 19 December 2021)

$$\lim_{x \rightarrow 0^+} \frac{1}{x} =$$

<https://youtu.be/1pCwkayMCXo>

Select the correct option

<input type="radio"/>	0
<input checked="" type="radio"/>	$+\infty$
<input type="radio"/>	1
<input type="radio"/>	$-\infty$

Question # 1 of 10 (Start time: 07:23:04 AM, 19 December 2021)

Average velocity is obtained by dividing the

=total distance traveled/total time

Select the correct option

<input checked="" type="radio"/>	Total distance by time elapsed
<input type="radio"/>	Total distance by velocity elapsed

Question # 4 of 10 (Start time: 07:24:37 AM, 19 December 2021)

The inequality $L - \epsilon < f(x) < L + \epsilon$ can be written as

Select the correct option

- | | |
|----------------------------------|-------------------------|
| <input checked="" type="radio"/> | $ f(x) - L < \epsilon$ |
| <input type="radio"/> | $ f(x) - L > \epsilon$ |
| <input type="radio"/> | $ f(x) - \epsilon > L$ |
| <input type="radio"/> | $ f(x) - \epsilon < L$ |

Question # 5 of 10 (Start time: 07:25:05 AM, 19 December 2021)

If $y = x^2$, then which of the following is true about it over the interval $[3, 4]$

NOTE:- where x^n denotes the n th power of x .

<https://youtu.be/1pCwkayMCXo>



Select the correct option

- | | |
|----------------------------------|----------------------------------|
| <input type="radio"/> | Its average rate of change is 8. |
| <input type="radio"/> | None of these. |
| <input type="radio"/> | Its average rate of change is 9. |
| <input checked="" type="radio"/> | Its average rate of change is 7. |

Question # 7 of 10 (Start time: 07:27:15 AM, 19 December 2021)

A function $f(x) = x / |x|$ is



Select the correct option

- | | |
|----------------------------------|---------------------------|
| <input checked="" type="radio"/> | continuous at $x = 1$ |
| <input type="radio"/> | not continuous at $x = 1$ |

Question # 8 of 10 (Start time: 07:27:36 AM, 19 December 2021)

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

<https://youtu.be/1pCwkayMCXo>



Select the correct option

- | | |
|----------------------------------|----|
| <input type="radio"/> | 2 |
| <input type="radio"/> | 1 |
| <input type="radio"/> | -1 |
| <input checked="" type="radio"/> | -2 |

Question # 9 of 10 (Start time: 07:28:36 AM, 19 December 2021)

The slope of the horizontal line is _____.

Select the correct option

- | | |
|----------------------------------|-------------------|
| <input checked="" type="radio"/> | Zero |
| <input type="radio"/> | Undefined |
| <input type="radio"/> | Less than zero |
| <input type="radio"/> | Greater than zero |

Question # 1 of 10 (Start time: 01:32:37 PM, 19 December 2021)

What is the value of $\cos x / x$; as x approaches to π ?

<https://youtu.be/1pCwkayMCXo>

Select the correct option

- pi

0

$\pi/2$

$-1/\pi$



Question # 5 of 10 (Start time: 01:36:48 PM, 19 December 2021)

A function f is said to be continuous on a closed interval $[a, b]$ if f is continuous from the right at " a " and " f " is continuous from the left at " b " and " f " is continuous on

Select the correct option

 (a, b)  $[a, b]$ $(a, b]$ $[a, b)$

MTH101 - Calculus And Analytical Geometry (Quiz 1)

Quiz Start Time: 01:32 PM, 19 December 2021

Question # 6 of 10 (Start time: 01:38:11 PM, 19 December 2021)

Total Marks: 1

$$\lim_{x \rightarrow +\infty} \left(\frac{9x^2}{3x^3} \right) =$$

Select the correct option

[Reload Math Equations](#)

0

 $+\infty$ 

3

 $-\infty$

If a secant line is drawn between two points P and Q on a curve, then the slope of this secant line=_____.

▶ Select the correct option

$f(x_2)-f(x_1)/x_2$

$f(x_1)-f(x_2)/x_2-x_1$

$f(x_2)-f(x_1)$

$\{f(x_2)-f(x_1)\}/(x_2-x_1)$



BC210402150: DILSHAD AHMAD

MTH101 - Calculus And Analytical Geometry (Quiz 1)

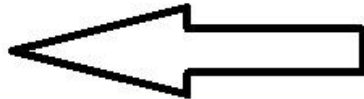
Quiz Start Time: 01:32 PM, 19 December 2021

Question # 8 of 10 (Start time: 01:40:12 PM, 19 December 2021)

Total Marks: 1

The average rate of change of $y = 1/x$, over the interval $[2, 3]$ is _____.<https://youtu.be/1pCwkayMCXo>

Select the correct option

 $2/3$. $-1/6$.

None of these.

Question # 9 of 10 (Start time: 01:41:02 PM, 19 December 2021)

Total Marks: 1

A limit of a function $f(x)$ exists when _____.

Select the correct option

Both left hand and right hand limits are not equal.

Both left hand and right hand limits are equal.



BC210402150: DILSHAD AHMAD

MTH101 - Calculus And Analytical Geometry (Quiz 1)

Quiz Start Time: 01:32 PM, 19 December 2021

Question # 10 of 10 (Start time: 01:41:42 PM, 19 December 2021)

Total Marks:

If a car travels 150 miles over a straight road in 3 hours, then its average velocity during the trip is

Select the correct option

 50m/h 60m/h 30m/h

Question # 10 of 10 (Start time: 07:29:18 AM, 19 December 2021)

$$\lim_{x \rightarrow 3} \left(\frac{x^2 - 9}{x - 3} \right) =$$


Select the correct option

<input checked="" type="radio"/>	6
<input type="radio"/>	3
<input type="radio"/>	0
<input type="radio"/>	∞

Question # 1 of 10 (Start time: 07:30:23 AM, 19 December 2021)

The limit of $f(x)$ as x approaches to 1 from the right is equal to L is represented by the notation

Select the correct option

 Reload

$$\lim_{x \rightarrow L} f(x) = 1$$

$$\lim_{x \rightarrow 1^-} f(x) = L$$

$$\lim_{x \rightarrow 1^+} f(x) = L$$

$$\lim_{x \rightarrow 1} f(x) = L$$

Question # 3 of 10 (Start time: 07:31:04 AM, 19 December 2021)

If $f(x)$ approaches to L as x approaches to a from left and right, then $f(x)$ is in the interval



Select the correct option

- | | |
|----------------------------------|---|
| <input checked="" type="radio"/> | $(L - \epsilon, L + \epsilon)$ where ϵ is a small positive number. |
| <input type="radio"/> | $(-8, +8)$ |
| <input type="radio"/> | Not defined |
| <input type="radio"/> | $(L - 1, L + 1)$ |

Question # 4 of 10 (Start time: 07:32:14 AM, 19 December 2021)

$|x-3| < 1$ implies.....



<https://youtu.be/1pCwkayMCXo>

Select the correct option

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | $2 < x < 4$ |
| <input type="radio"/> | $-2 < x < -4$ |
| <input type="radio"/> | $x-3 < 1$ |
| <input type="radio"/> | $-4 < x < 4$ |

Question # 5 of 10 (Start time: 07:33:47 AM, 19 December 2021)

The average rate of change of $y = 1/x$, over the interval $[2, 3]$ is _____.



Select the correct option

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | $2/3.$ |
| <input type="radio"/> | $1/6.$ |
| <input type="radio"/> | None of these. |
| <input checked="" type="radio"/> | $-1/6.$ |

Question # 6 of 10 (Start time: 07:34:21 AM, 19 December 2021)

If a body in the time interval of five minutes, covers the distance of five hundred meters then its average speed is -----



$$=dv/dt = 500/5=100$$

Select the correct option

- | | |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | 100 meter/min |
| <input type="radio"/> | 505 meter/min |
| <input type="radio"/> | 25 meter/min |
| <input type="radio"/> | 2500 meter/min |

Question # 7 of 10 (Start time: 07:34:59 AM, 19 December 2021)

The limit of $f(x)$ as x approaches to 1 from the left is equal to L is represented by the notation

Select the correct option

 Reload Mo

$\lim_{x \rightarrow 1^+} f(x) = L$

$\lim_{x \rightarrow L} f(x) = 1$

$\lim_{x \rightarrow 1} f(x) = L$

$\lim_{x \rightarrow 1^-} f(x) = L$

Question # 10 of 10 (Start time: 07:36:42 AM, 19 December 2021)

What is the average rate of change of y with respect to x over the interval $[0,1]$

if $y=6x^2$

NOTE: x^n means 'x' to the power 'n'



<https://youtu.be/1pCwkayMCXo>

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | 5 |
| <input type="radio"/> | None of these |
| <input checked="" type="radio"/> | 6 |
| <input type="radio"/> | 4 |

BC210401698: MUHAMMAD AKRAM

MTH101 - Calculus And Analytical Geometry (Quiz 1)

Question # 1 of 10 (Start time: 04:02:35 PM, 20 December 2021)

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

Select the correct option

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | 1.5 |
| <input type="radio"/> | 1 |
| <input type="radio"/> | None of these |
| <input type="radio"/> | 1.3 |

BC210401698: MUHAMMAD AKRAM

MTH101 - Calculus And Analytical Geometry (Quiz 1)

Question # 2 of 10 (Start time: 04:03:36 PM, 20 December 2021)

Let R and S be reflexive relations on a set A then _____.

Select the correct option

Neither $R \cup S$ is reflexive nor $R \cap S$ is reflexiveBoth $R \cup S$ and $R \cap S$ are reflexive $R \cup S$ is reflexive $R \cap S$ is reflexive

Question # 3 of 10 (Start time: 04:05:29 PM, 20 December 2021)

In order to find the area under a curve we approximate the area by using

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | None of these |
| <input type="radio"/> | Hexagons |
| <input type="radio"/> | Circles |
| <input checked="" type="radio"/> | Rectangles |

Question # 4 of 10 (Start time: 04:06:34 PM, 20 December 2021)

If the graph of a function oscillates between 1 and -1 then its limit is

Select the correct option

- | | |
|----------------------------------|----------------|
| <input checked="" type="radio"/> | Does not exist |
| <input type="radio"/> | -1 |
| <input type="radio"/> | 0 |
| <input type="radio"/> | 1 |

Question # 5 of 10 (Start time: 04:07:50 PM, 20 December 2021)

A function f is called continuous from the left at point c if $f(c)$ is defined and left hand limit $f(x)$ exist and

<https://youtu.be/1pCwkayMCXo>

Select the correct option



left hand limit $f(x) = f(c)$



left hand limit $f(x) =$ right hand limit $f(x) = f(c)$



None of these



right hand limit $f(x) = f(c)$

Question # 6 of 10 (Start time: 04:09:10 PM, 20 December 2021)

The functions $\sin x$ and $\cos x$ are

Select the correct option

Continuous

Discontinuous

Question # 7 of 10 (Start time: 04:10:18 PM, 20 December 2021)

180 degree = _____ radians

1 rad = 57.3 degree

Select the correct option

<input checked="" type="radio"/>	π
<input type="radio"/>	$\frac{\pi}{180}$
<input type="radio"/>	1
<input type="radio"/>	$-\pi$

Question # 9 of 10 (Start time: 04:12:11 PM, 20 December 2021)

A bus travels 175 miles in 2.5 hours. Its average velocity will be.....

$$=175/2.5 = 70$$

Select the correct option

70m/h

90m/h

80m/h

60m/h

Question # 3 of 10 (Start time: 04:13:40 PM, 20 December 2021)

Let $y = x^2 + 1$

Then the instantaneous rate of change of y with respect to x at the point -2 is

$$\frac{d}{dx}(x^2 + 1) = 2x = -4$$

<https://youtu.be/1pCwkayMCXo>

Select the correct option

<input type="radio"/>	0
<input checked="" type="radio"/>	-4
<input type="radio"/>	3
<input type="radio"/>	-1

Question # 10 of 10 (Start time: 04:13:37 PM, 20 December 2021)

$$\lim [f(x)]^n =$$

Select the correct option

$n[\lim f(x)]$

$[\lim f(x)]$



$[\lim f(x)]^n$

Question # 5 of 10 (Start time: 04:17:19 PM, 20 December 2021)

Total Marks: 1

If x approaches to 2, $\lim_{x \rightarrow 2} 3x - 5 = 1$. In this statement the limiting value of $3x - 5$ is

$\lim_{x \rightarrow 2} 3x - 5 = 1$ then $3x - 5$ is

Select the correct option

2



1



Click to Save Answer & Move to Next Question

A function f is said to be continuous on a closed interval $[a, b]$ if f is continuous from the right at " a " and " f " is continuous from the left at " b " and " f " is continuous on

Select the correct option

<input checked="" type="radio"/>	(a, b)
<input type="radio"/>	$[a, b)$
<input type="radio"/>	$(a, b]$
<input type="radio"/>	$[a, b]$

Click to Save Answer & Move to Next Question

Average rate of change in 'y' w.r.t 'x' represents the slope of ____ line on the graph.

Select the correct option

<input type="radio"/>	tangent
<input type="radio"/>	parabola
<input checked="" type="radio"/>	secant
<input type="radio"/>	circle

Click to Save Answer & Move to Next Question

If the function f and g are continuous at c then f/g is continuous at c if

Select the correct option



$f(x) = 0$



$f(x)$ is not equal to zero



$g(x)$ is not equal to zero



$g(x) = 0$

Click to Save Answer & Move to Next Question

Question # 9 of 10 (Start time: 04:24:05 PM, 20 December 2021)

What is the value of $\sin x / x$; as x approaches to zero?

<https://youtu.be/1pCwkayMCXo>

Select the correct option

<input checked="" type="radio"/>	1
<input type="radio"/>	$\pi / 2$
<input type="radio"/>	0
<input type="radio"/>	Undefined

Click to Save

Question # 10 of 10 (Start time: 04:25:13 PM, 20 December 2021)

Total Marks: 1

The limit of $f(x)$ as x approaches to 1 from the right is equal to L is represented by the notation

Select the correct option

 Reload Math Equations



$$\lim_{x \rightarrow 1^-} f(x) = L$$



$$\lim_{x \rightarrow L} f(x) = 1$$



$$\lim_{x \rightarrow 1^+} f(x) = L$$



$$\lim_{x \rightarrow 1} f(x) = L$$

Question # 1 of 10 (Start time: 07:15:06 PM, 20 December 2021)

Total Marks: 1

If the function f and g are continuous at c , then
 $f \circ g$ is at c .

Select the correct option

<input type="radio"/>	Discontinuous
<input checked="" type="radio"/>	Continuous

Click to Save Answer & Move to Next Question

Question # 3 of 10 (Start time: 07:18:32 PM, 20 December 2021)

Total Marks: 1

If $y=f(x)$ then the average rate of change of y with respect to x over the interval $[x_0,x_1]$ is slope of tangent line joining at $(x_0,f(x_0))$.

Select the correct option

<input type="radio"/>	True https://youtu.be/1pCwkayMCXo
<input checked="" type="radio"/>	False

Click to Save Answer & Move to Next Question

If the function f and g are continuous at c then f/g is continuous at c if $g(x)$ is not equal to zero and is discontinuous at c if

Select the correct option

<input type="radio"/>	$f(x)$ is not equal to zero
<input checked="" type="radio"/>	$g(x)=0$
<input type="radio"/>	$g(x)$ is not equal to zero
<input type="radio"/>	$f(x)=0$

Click to Save Answer & Move to Next Question

Question # 10 of 10 (Start time: 07:05:26 PM, 20 December 2021)

Total Mark

Is the function $f(x) = 1/(x+1)$ continuous at $x = 1$? If not, why?

Select the correct option

 f is not continuous at $x = 1$. f is continuous at $x = 1$ 

BC2

Time Left 44 sec(s)

MTH101 - Calculus And Analytical Geometry (Quiz 1)

Quiz Start Time: 09:40 AM, 19 December 2021

Question # 1 of 10 (Start time: 09:40:58 AM, 19 December 2021)

Total Marks: 1

$$\lim_{x \rightarrow 1} \left(\frac{x^2 - 1}{x - 1} \right) =$$

Select the correct option


Reload Math Equations

- 2
- 0
- 1
- ∞



Click to Save Answer & Move to Next Question

There is one-to-one correspondence between the points on co-ordinate line and _____

 Select the correct option



Set of natural numbers



Set of integers



Set of irrational numbers



Set of real numbers



Click to Save Answer & Move



Let $f(x) = x^2 + 1$ and $g(x) = 2x$ then $f(g(x)) = ?$

Select the correct option

Re



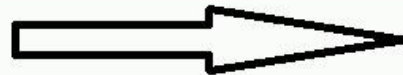
$4x^2 - 1$



$4x^2 + 1$



$4x^2 + 4$



$x^2 + 4$

Click to Save Answer & Move



Graph of $y = x^2 + 4$ is same as but it has been translated 4 units up in the y direction.

Select the correct option

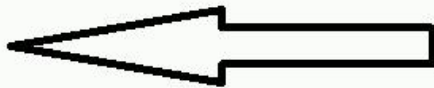
Re



$$y = x^2 + 2$$



$$y = x^2 - 2$$



$$y = x^2$$



None of these

Click to Save Answer & Move

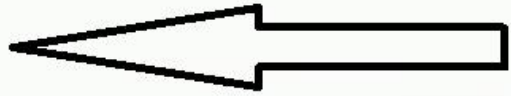


Graph of the equation $y = x + 3$ represents a

Select the correct option

Re

- Circle
- Line
- Parabola
- Ellipse



Click to Save Answer & Mov



If $y=f(x)$ then instantaneous rate of change of y with respect to x at the point x_0 is given by slope of tangent line at $(x_0, f(x_0))$

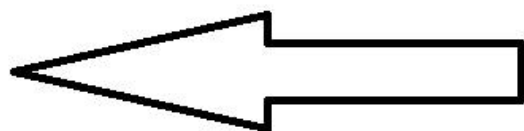


Select the correct option

False



True



A limit of a function $f(x)$ exists when _____.

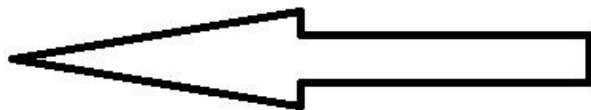
Select the correct option



Both left hand and right hand limits are not equal.



Both left hand and right hand limits are equal.



What is the value of $\cos x / x$; as x approaches to pi.?

<https://youtu.be/1pCwkayMCXo>

Select the correct option



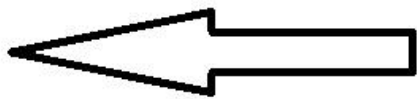
- pi



0



- 1/pi



pi/2

Question # 6 of 10 (Start time: 07:00:07 PM, 20 December 2021)

Total Mark

The inequality $L - \epsilon < f(x) < L + \epsilon$ can be written as

Select the correct option



$|f(x) - \epsilon| < L$



$|f(x) - L| > \epsilon$



$|f(x) - L| < \epsilon$

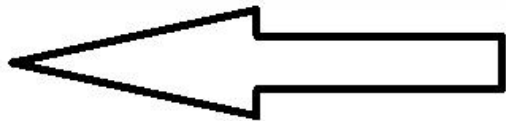
Question # 7 of 10 (Start time: 07:01:49 PM, 20 December 2021)

Total Mark

Let a car moves from lower mall with the average velocity of 100 km/h and after covering the distance 50 km , the car reach at the airport Lahore. The time elapsed is

Select the correct option

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | 1/2 |
| <input type="radio"/> | None of these |
| <input type="radio"/> | 2 |

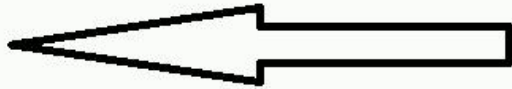


Which of the following is radius of a circle represented by equation : $x^2 + y^2 = 25$?

Select the correct option

Re

- | | |
|-----------------------|----|
| <input type="radio"/> | 25 |
| <input type="radio"/> | 5 |
| <input type="radio"/> | 1 |
| <input type="radio"/> | 0 |



Click to Give Answer & Move



If $y=f(x)$ then the average rate of change of y with respect to x over the interval $[x_0,x_1]$ is slope of tangent line joining at $(x_0,f(x_0))$.

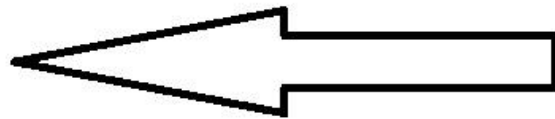
Select the correct option



True



False



Question # 1 of 10 (start time: 07:28:57 AM, 19 December 2021)

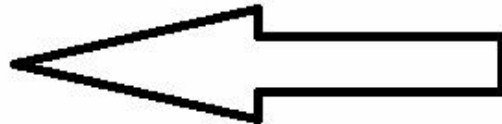
Total Marks: 1

Is the function $f(x) = e^{\ln x}$ continuous at $x=0$? if not, why?

Select the correct option

$f(0)$ is not defined.

f is continuous at $x = 0$.

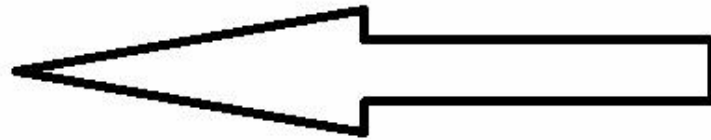


Click to Save Answer & Move to Next Question

Select the correct option

$f(0)$ is not defined.

f is continuous at $x = 0$.



Click to Save Answer & Move to Next Question

Question # 2 of 10 (start time: 07:29:22 AM, 19 December 2021)

Total Marks: 1

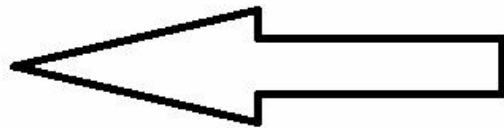


KINEMASTER

ϵ (epsilon) used in the definition of limit can be a negative number.

Select the correct option

<input type="radio"/>	False
<input type="radio"/>	True



Click to Save Answer & Move to Next Question

Question # 3 of 10 (Start time: 07:30:19 AM, 19 December 2021)

Total Marks: 7

If the function f and g are continuous at c then f/g is continuous at c if

KINEMASTER

Select the correct option

- | | |
|----------------------------------|-----------------------------|
| <input type="radio"/> | $f(x)$ is not equal to zero |
| <input type="radio"/> | $g(x)=0$ |
| <input checked="" type="radio"/> | $g(x)$ is not equal to zero |
| <input type="radio"/> | $f(x)=0$ |

[Click to Save Answer & Move to Next Question](#)

Question # 4 of 10 (Start time: 07:30:48 AM, 19 December 2021)

Total Marks: 7

$$\lim_{x \rightarrow 0} x^{-2} =$$

KINEMASTER

Select the correct option

[Reload Math Equations](#)

- | | |
|----------------------------------|----------|
| <input type="radio"/> | -2 |
| <input type="radio"/> | 1 |
| <input type="radio"/> | 0 |
| <input checked="" type="radio"/> | ∞ |

[Click to Save Answer & Move to Next Question](#)

Question # 5 of 10 (Start time: 07:31:04 AM, 19 December 2021)

Total Marks: 7



KINEMASTER

Velocity is the rate of change of position w.r.t

Select the correct option

<input type="radio"/>	force
<input type="radio"/>	displacement
<input type="radio"/>	acceleration
<input checked="" type="radio"/>	time

[Click to Save Answer & Move to Next Question](#)

Question # 6 of 10 (start time: 07:32:35 AM, 19 December 2021)

Total Marks: 7

Let R and S be reflexive relations on a set A then -----

KINEMASTER

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | R intersection S is reflexive |
| <input type="radio"/> | Neither R union S is reflexive nor R intersection S is reflexive |
| <input checked="" type="radio"/> | R union S is reflexive |
| <input type="radio"/> | Both R union S and R intersection S are reflexive |



Question # 7 of 10 (start time: 07:34:31 AM, 19 December 2021)

Total Marks: 7

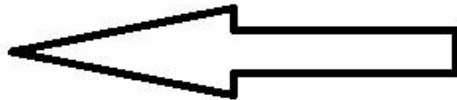
A function f is continuous at a point $x = a$ if and only if $f(a)$ is defined, $\lim f(x)$ as x approached to "a" exists and

<https://youtu.be/1pCwkayMCXo>

KINEMASTER

Select the correct option

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> | $\lim f(x) < f(a)$ |
| <input checked="" type="radio"/> | $\lim f(x) = f(a)$ |
| <input type="radio"/> | $\lim f(x)$ is not equal to $f(a)$ |
| <input type="radio"/> | $\lim f(x) > f(a)$ |



Question # 8 of 10 (Start time: 07:34:56 AM, 19 December 2021)

Total Marks: 7

What is the value of $(\cos x \tan x)/x$; as x approaches to zero.?

KINEMASTER

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | None of these |
| <input type="radio"/> | $\pi/2$ |
| <input checked="" type="radio"/> | 1 |
| <input type="radio"/> | 0 |



Question # 8 of 10 (Start time: 07:34:56 AM, 19 December 2021)

Total Marks: 7

What is the value of $(\cos x \cdot \tan x)/x$; as x approaches to zero.?

KINEMASTER

Select the correct option

<input type="radio"/>	None of these
<input type="radio"/>	$\pi/2$
<input checked="" type="radio"/>	1
<input type="radio"/>	0

[Click to Save Answer & Move to Next Question](#)

Question # 3 of 10 (Start time: 06:00:52 PM, 19 December 2021)

Total Marks: 1

The instantaneous rate of change of $y = x^2 + 4$ with respect to x at $x = 2$ is_____.

NOTE:- where x^n denotes the n th power of x .

<https://youtu.be/1pCwkayMCXo>

Select the correct option

- | | |
|----------------------------------|----|
| <input type="radio"/> | 10 |
| <input type="radio"/> | 30 |
| <input checked="" type="radio"/> | 4 |
| <input type="radio"/> | 20 |

Activate Windows

Go to Settings to activate Windows.

Click to Save Answer & Move to Next Question

Question # 4 of 10 (Start time: 06:02:22 PM, 19 December 2021)

Total Marks: 1



The limit of $f(x)$ as x approaches to 1 from the left is equal to L is represented by the notation

Select the correct option

 Reload Math Equations



$$\lim_{x \rightarrow 1^-} f(x) = L$$



$$\lim_{x \rightarrow L} f(x) = 1$$



$$\lim_{x \rightarrow 1} f(x) = L$$



$$\lim_{x \rightarrow 1^+} f(x) = L$$



Click to Save Answer & Move to Next Question




1:12 / 2:55



The limit of $f(x)$ as x approaches to 1 from the left is equal to L is represented by the notation

Select the correct option


 Reload Math Equations

$\lim_{x \rightarrow 1^-} f(x) = L$

$\lim_{x \rightarrow L} f(x) = 1$

$\lim_{x \rightarrow 1} f(x) = L$

$\lim_{x \rightarrow 1^+} f(x) = L$

 Click to Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 06:06:28 PM, 19 December 2021)

Total Marks: |

If f is continuous on a closed interval $[a, b]$ and C is any number between $f(a)$ and $f(b)$, inclusive, then there is at least one number x in the interval $[a, b]$ such that -----



Select the correct option

- $f(x)$ is not equal to C
- $f(x) > C$
- $f(x) = C$
- $f(x) < C$

Activate Windows
Go to Settings to activate Windows

Click to Save Answer & Move to Next Question

Question # 8 of 10 (Start time: 06:07:25 PM, 19 December 2021)

Total Marks: 1

Velocity is the rate of change of position w.r.t

Select the correct option



time



displacement



acceleration



force

Activate Windows
Go to Settings to activate Windows



2:08 / 2:55



Question # 10 of 10 (Start time: 06:10:09 PM, 19 December 2021)

Total Marks: 1

Average velocity is obtained by dividing the

Select the correct option

Total distance by time elapsed

Total distance by velocity elapsed

Activate Windows

Go to Settings to activate Windows

Click to Save Answer & Move to Next Question



Question # 4 of 10 (Start time: 09:32:22 AM, 20 December 2021)

Total Marks: 1

A function f is called continuous from the left at point c if $f(c)$ is defined and left hand limit $f(x)$ exist and



Select the correct option

- left hand limit $f(x) =$ right hand limit $f(x) = f(c)$
- right hand limit $f(x) = f(c)$
- None of these
- left hand limit $f(x) = f(c)$



Activate Windows
Go to Settings to activate Windows.

Click to Save Answer & Move to Next Question NOW





Question # 5 of 10 (Start time: 09:32:53 AM, 20 December 2021)

Total Marks: 1

Is the function $f(x) = e^{\ln x}$ continuous at $x=0$? If not, why?



Select the correct option

f is continuous at $x = 0$.



$f(0)$ is not defined.

Activate Windows
Go to Settings to activate Windows

Click to Save Answer & Move to Next Que **NOW**

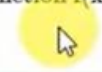




Question # 7 of 10 (Start time: 09:34:57 AM, 20 December 2021)

Total Marks: 1

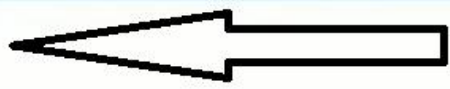
Limit of a function $f(x)$ exists, if (left hand limit of $f(x)$) $\lim_{x \rightarrow 1^-} f(x) = 5$, then (right hand limit of $f(x)$) $\lim_{x \rightarrow 1^+} f(x) =$ _____.



Select the correct option

[Reload Math Equations](#)

- 5
- 1
- 0
- 1



[Click to Save Answer & Move to Next Question](#)

Go to Settings to activate Windows.





Question # 9 of 10 (Start time: 09:36:10 AM, 20 December 2021)

Total Marks: 1

$$\lim_{x \rightarrow -\infty} \frac{1}{x} =$$

Select the correct option

Reload Math Equations

- $+\infty$
- 1
- $-\infty$
- 0



Click to Save Answer & Move to Next Question

Go to Settings to activate Windows





Question # 10 of 10 (Start time: 09:36:40 AM, 20 December 2021)

Total Marks: 1

If $(x \text{ approaches to } 2) \lim 3x-5=1$. In this statement the limiting value of $3x-5$ is

Select the correct option

- 1 
- 2

Activate Windows
Go to Settings to activate Windows

Click to Save Answer & Move to Next Que NOW



Let R and S be reflexive relations on a set A then _____.

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | $R \cap S$ is reflexive |
| <input type="radio"/> | Neither $R \cup S$ is reflexive nor $R \cap S$ is reflexive |
| <input checked="" type="radio"/> | $R \cup S$ is reflexive |
| <input type="radio"/> | Both $R \cup S$ and $R \cap S$ are reflexive |

A function f is continuous at a point $x = a$ if and only if $f(a)$ is defined, $\lim f(x)$ as x approached to "a" exists and

Select the correct option

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> | $\lim f(x) < f(a)$ |
| <input checked="" type="radio"/> | $\lim f(x) = f(a)$ |
| <input type="radio"/> | $\lim f(x)$ is not equal to $f(a)$ |
| <input type="radio"/> | $\lim f(x) > f(a)$ |

Question # 9 of 10 (start time: 07:35:26 AM, 19 December 2021)

Total Marks: 7

Is the function $f(x) = \tan(x)$ continuous at $x = \pi$? If not, why?

KINEMASTER

Select the correct option

 f is continuous at $x = \pi$. $f(\pi)$ is not defined.

Click to Save Answer & Move to Next Question

$$\lim_{x \rightarrow 0} x^{-2} =$$

Select the correct option



-2



1



0



∞

A function f is called continuous from the left at point c if $f(c)$ is defined and left hand limit $f(x)$ exist and

Select the correct option



None of these



left hand limit $f(x) =$ right hand limit $f(x) = f(c)$



right hand limit $f(x) = f(c)$



left hand limit $f(x) = f(c)$

If $(0,0)$ and $(2,2)$ are any two points on a curve then the slope of a line parallel to the secant segment through these points is _____.

Select the correct option



1



-2



2



-1

For the curve: $f(t) = -2t+3$, the instantaneous rate of change of ' $f(t)$ ' at ' $t = 1$ ' is _____.

<https://youtu.be/1pCwkayMCXo>

Select the correct option



-1



-2



1



2



A function is continuous on an interval if it is continuous ____ of the interval.

Select the correct option



At the end points



At every point



At some points



None of these

If $y=x^2$ then average rate of change of y with respect to x over the interval $[1, 2]$ is

NOTE: x^n means 'x' to the power 'n'



Select the correct option



1



2



None of these



3

Average rate of change in 'y' w.r.t 'x' represents the slope of ____ line on the graph.

Select the correct option

- | | |
|----------------------------------|----------|
| <input checked="" type="radio"/> | secant |
| <input type="radio"/> | parabola |
| <input type="radio"/> | tangent |
| <input type="radio"/> | circle |

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



Select the correct option

displacement

acceleration

instantaneous velocity

average velocity

ϵ (epsilon) used in the definition of limit can be a negative number.



Select the correct option

False



True




Question # 2 of 10 (Start time: 01:33:54 PM, 19 December 2021)

Total Marks: 1

If a truck travels 100 miles over a straight road in a 5-hour period, then the average velocity of the truck will be

Select the correct option

- | | |
|----------------------------------|---------------|
| <input checked="" type="radio"/> | 20 miles/hour |
| <input type="radio"/> | 5 miles/hour |
| <input type="radio"/> | 12 miles/hour |
| <input type="radio"/> | None of these |
- 

Question # 3 of 10 (Start time: 01:34:36 PM, 19 December 2021)

Total Marks: 1

The instantaneous velocity of any object can be represented geometrically by_____

<https://youtu.be/1pCwkayMCXo>

▶ Select the correct option

the slope of the tangent line.



both slope of secant and tangent lines.

the slope of the secant line.

None of these.