

RIZ MUGHAL

QUIZ MASTER

Grand Quiz(MTH101)

100% correct solution.

For more information you can visit my channel and for any type of help related to CS619 you can contact me.



YOUTUBE CHANNEL:

<https://www.youtube.com/channel/UCINsFwDiB62SValCcPDZbRQ/playlists>

FACEBOOK GROUP:

<https://www.facebook.com/groups/923887914750307>

MTH101:Grand Quiz

Question # 1 of 30 (Start time: 12:56:07 AM, 30 December 2020)

$$\frac{d}{dx} x^{-100} = \underline{\hspace{2cm}}.$$

Select the correct option

- | | |
|----------------------------------|----------------|
| <input type="radio"/> | $-100x^{99}$ |
| <input type="radio"/> | $100x^{-99}$ |
| <input type="radio"/> | $-100x^{101}$ |
| <input checked="" type="radio"/> | $-100x^{-101}$ |

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Question # 2 of 30 (Start time: 12:56:27 AM, 30 December 2020)

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

Select the correct option

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

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

Select the correct option

[Reload Math Equat](#)



$$y = mx + c$$



$$y - y_1 = m(x - x_1)$$

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

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Question # 4 of 30 (Start time: 12:57:33 AM, 30 December 2020)

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

Select the correct option

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

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Question # 5 of 30 (Start time: 12:57:46 AM, 30 December 2020)

The derivative of $(\sin(\cos x))$ is

Select the correct option

<input type="radio"/>	$\cos(\cos x)$
<input type="radio"/>	$\cos(\sin x)$
<input type="radio"/>	$-\sin(\cos x) \cdot \sin x$
<input checked="" type="radio"/>	$-\cos(\cos x) \cdot \sin x$

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Question # 6 of 30 (Start time: 12:58:43 AM, 30 December 2020)

Which of the following point satisfies the equation: $2x + 5y = 15$?

Select the correct option

- | | |
|----------------------------------|--------|
| <input type="radio"/> | (1, 3) |
| <input checked="" type="radio"/> | (5, 1) |
| <input type="radio"/> | (2, 5) |
| <input type="radio"/> | (4, 2) |

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Question # 7 of 30 (Start time: 12:59:06 AM, 30 December 2020)

Which of the following is not an example of set?

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | Collection of prime numbers which are even. |
| <input type="radio"/> | Collection of colors in rainbow. |
| <input checked="" type="radio"/> | Collection of some stars in the sky. |
| <input type="radio"/> | Collection of whole numbers between 20 and 25. |

Question # 8 of 30 (Start time: 12:59:21 AM, 30 December 2020)

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

Select the correct option

<input type="radio"/>	Circle
<input checked="" type="radio"/>	Line
<input type="radio"/>	Parabola
<input type="radio"/>	None of these

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Question # 9 of 30 (Start time: 12:59:40 AM, 30 December 2020)

Which of the following is an example of set?

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | Collection of good student in a class. |
| <input checked="" type="radio"/> | Collection of planets in our solar system. |
| <input type="radio"/> | Collection of time. |
| <input type="radio"/> | Collection of temperature. |

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Question # 10 of 30 (Start time: 12:59:52 AM, 30 December 2020)

Graphically the function $y=c$ represents _____ line.

Select the correct option



Horizontal



Vertical

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Question # 11 of 30 (Start time: 01:01:03 AM, 30 December 2020)

If $f(x) = 50 \cos x$, then $f'(x)$ at $x = \frac{\pi}{2}$ will be

Select the correct option

<input checked="" type="radio"/>	-50
<input type="radio"/>	-25
<input type="radio"/>	-40
<input type="radio"/>	-90

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Question # 12 of 30 (Start time: 01:01:23 AM, 30 December 2020)

Total Mar

Which of the following is x - intercept of a parabola represented by the equation : $y = x^2 + 2x$

Select the correct option

[Reload Math Equatio](#)

<input checked="" type="radio"/>	0 and -2
<input type="radio"/>	1 and 2
<input type="radio"/>	0 only
<input type="radio"/>	1 only

Question # 13 of 30 (Start time: 01:01:41 AM, 30 December 2020)

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

Select the correct option

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

Question # 14 of 30 (Start time: 01:01:57 AM, 30 December 2020)

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.

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Question # 15 of 30 (Start time: 01:02:12 AM, 30 December 2020)

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

Select the correct option

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

Question # 16 of 30 (Start time: 01:02:26 AM, 30 December 2020)

If $w = \sin x$ and $x = t$ then $\frac{dw}{dt} = \dots\dots\dots$

Select the correct option

<input type="radio"/>	$-\cos t$
<input type="radio"/>	$-\cos x$
<input type="radio"/>	$\cos x$
<input checked="" type="radio"/>	$\cos t$

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Question # 17 of 30 (Start time: 01:02:42 AM, 30 December 2020)

The function $f(x) = |x|$ is differentiable in the interval $(-\infty, 0)$.

Select the correct option

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

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Question # 18 of 30 (Start time: 01:02:58 AM, 30 December 2020

_____ of domain could have _____ in range.

Select the correct option

- | | |
|----------------------------------|----------------------------|
| <input type="radio"/> | An element , two images |
| <input type="radio"/> | An element , no image |
| <input type="radio"/> | Many elements , no image |
| <input checked="" type="radio"/> | Many elements , same image |

Question # 19 of 30 (Start time: 01:03:16 AM, 30 December 2020)

If

$$f(x) = 4x^2 + 2x$$

, then which of the following is true about it.

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | Its derivative with respect to x is 8x. |
| <input checked="" type="radio"/> | Its derivative with respect to x is $8x + 2$. |
| <input type="radio"/> | Its derivative with respect to x is |
| <input type="radio"/> | None of these. |

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Question # 20 of 30 (Start time: 01:03:29 AM, 30 Dec)

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

Select the correct option

- | | |
|----------------------------------|-----------------------|
| <input type="radio"/> | $5\cos(x) - 2\sin(x)$ |
| <input type="radio"/> | $5\sin(x) + 2\cos(x)$ |
| <input checked="" type="radio"/> | $5\cos(x) + 2\sin(x)$ |
| <input type="radio"/> | None of these |

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Question # 21 of 30 (Start time: 01:03:42 AM, 30 December 20

0.121212 is an example of _____

Select the correct option

<input type="radio"/>	Integers
<input type="radio"/>	Natural numbers
<input checked="" type="radio"/>	Rational numbers
<input type="radio"/>	Irrational numbers

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Question # 22 of 30 (Start time: 01:04:03 AM, 30 December 2020)

The derivative of $(10x \sin x)$ is

Select the correct option



$10(\sin x + x \cos x)$



$\sin x - 10x \cos x$



$-10 \sin x - x \cos x$



$10 \sin x + 10 \cos x$

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Question # 23 of 30 (Start time: 01:04:18 AM, 30 December 2020)

Which of the followings is derivative of $f(x) = 4x^3$?

Select the correct option

[Reload](#)

$$f'(x) = 12x$$

$$f'(x) = 12x^2$$

$$f'(x) = x^4$$

$$f'(x) = 12x^3$$

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Question # 24 of 30 (Start time: 01:04:38 AM, 30 December 2020)

The area A of a circle depends on its

Select the correct option

<input type="radio"/>	Center
<input type="radio"/>	Circumference
<input type="radio"/>	Diameter
<input checked="" type="radio"/>	Radius

Question # 25 of 30 (Start time: 01:04:51 AM, 30 December 2020)

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

Select the correct option

- | | |
|----------------------------------|--------------------|
| <input checked="" type="radio"/> | $y - 12x + 21 = 0$ |
| <input type="radio"/> | $y + 12x + 21 = 0$ |
| <input type="radio"/> | $y - 12x - 21 = 0$ |
| <input type="radio"/> | None of these. |

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Question # 26 of 30 (Start time: 01:05:07 AM, 30 December 2020)

The Graph of equation of a . . . does not represent a function.

Select the correct option

<input checked="" type="radio"/>	Circle
<input type="radio"/>	Line
<input type="radio"/>	Parabola
<input type="radio"/>	None of these

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Question # 27 of 30 (Start time: 01:05:21 AM, 30 December 2020)

Value of x at which the derivatives of both functions $f(x) = \sin x$ and $g(x) = \cos x$ are equal, is

(note: $\pi = 180$ degrees)

Select the correct option

Relo

<input type="radio"/>	0
<input checked="" type="radio"/>	$-\frac{\pi}{4}$
<input type="radio"/>	$\frac{\pi}{4}$
<input type="radio"/>	$\frac{\pi}{2}$

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Question # 28 of 30 (Start time: 01:05:39 AM, 30 December 2020)

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

Select the correct option



True



False

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Question # 29 of 30 (Start time: 01:05:49 AM, 30 December 2020)

If $g(u) = 5u + 3$ then its derivative with respect to 'u' is

Select the correct option

<input checked="" type="radio"/>	5
<input type="radio"/>	$5 + 3u$
<input type="radio"/>	3
<input type="radio"/>	$5 - 3u$

Question # 30 of 30 (Start time: 01:06:03 AM, 30 December 2020)

Total Marks: 2

Which of the following is VERTEX of parabola represented by the equation : $y = x^2 + 2$

Select the correct option

[Reload Math Equation](#)

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | (1, 3) |
| <input type="radio"/> | (2, 6) |
| <input checked="" type="radio"/> | (0, 2) |
| <input type="radio"/> | None of these |