Question # 9 of 10 (Start time: 01:09:17 PM, 07 June 2021)

Harmonic conjugate of $u(x, y) = e^y \cos x$ is _____.

Select the correct option

- $e^x \sin y + c$
- $e^y \sin x + c$
- $e^x \cos y + c$
- $-e^y \sin x + c$

MTH632:Quiz # 2

Quiz Start Time: 01:12 PM, 07 June 2021

Question # 3 of 10 (Start time: 01:13:30 PM, 07 June 2021)

Total Marks: 1

The Cauchy - Riemann equations on a pair of real - valued functions of two real variables $u(x, y)$ and $v(x, y)$ are $U_x = V_y$ and _____.

Select the correct option

Reload Math Equations

- $U_y = -V_x$
- $U_y = -V_y$
- $U_x = -V_y$
- $U_x = -V_x$

Click to Save Answer & Move to Next Question

Question # 4 of 10 (Start time: 01:14:15 PM, 07 June 2021) **Total Marks:** 1

A function V is said to be harmonic if and only if _____.

Select the correct option

Reload Math Equations

- $V_{xx} + V_{yy} = 0$
- $V_x^2 + V_y^2 = 0$
- $V_{xy} + V_{yx} = 0$
- $V_x + V_y = 0$

Question # 7 of 10 (Start time: 01:17:00 PM, 07 June 2021) Total Marks: 1

$If\ we\ write\ the\ function\ w = z^2 - z\ as\ w = u(x,y) + iv(x,y),\ then\ v(x,y) =$

Select the correct option

Reload Math Equations

- $2xy - y$
- $x^2 - x - y^2$

Click to Save Answer & Move to Next Question

Question # 2 of 10 (Start time: 01:17:26 PM, 07 June 2021)

If we write the function $w = z^2 - z$ as $w = u(x, y) + iv(x, y)$, then $u(x, y) =$

Select the correct option

Reload

- $x^2 + y^2$
- none of these
- $x^2 - y^2$
- $x^2 - x - y^2$

MTH632:Quiz # 2

Quiz Start Time: 01:12 PM, 07 June 2021

Question # 9 of 10 (Start time: 01:19:07 PM, 07 June 2021)

Total Marks: 1

$$If\ f(z) = \frac{4z^4 - 1}{(z^2 - 1)(z - 2)},\ \text{then f(z) is not analytic at z} =$$

____.

Select the correct option

Reload Math Equations

- 5
- 4
- 3
- 1



stion # 5 of 10 (Start time: 01:19:15 PM, 07 June 2021)

Quiz Start Time: 01:16 P

The Cauchy - Riemann equations on a pair of real - valued functions of two real variables $u(x, y)$ and $v(x, y)$ are $U_x = V_y$ and _____.

ct the correct option

Reload Ma

- $U_y = -V_x$
- $U_x = -V_x$
- $U_y = -V_y$
- $U_x = -V_y$

Question # 10 of 10 (Start time: 01:19:47 PM, 07 June 2021) Total Marks: 1

$$If\ f(z) = \frac{z^4 + 1}{(z^2 + 1)(z - 3)},\ \text{then f(z) is not analytic at z} =$$

___.

Select the correct option

Reload Math Equations

- -1
- 2
- i
- 1

Click to Save Answer & Move to Next Question

Question # 1 of 10 (Start time: 01:23:53 PM, 07 June 2021) Total Marks: 1

In the complex valued function z = x - iy, the value of $U_x =$ _____.

Select the correct option

Reload Math Equations

- 0
- 2
- 1
- -1

Click to Save Answer & Move to Next Question

MTH632:Quiz # 2

Quiz Start Time: 01:23 PM, 07 June 2021

Question # 10 of 10 (Start time: 01:30:12 PM, 07 June 2021)

Total Marks: 1

A point at which a function ceases to be analytic is called a _____ point.

Select the correct option

- non-regular
- singular
- non-singular
- regular

Click to Save Answer & Move to Next Question

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quiz.vu.edu.pk/QuizQuestion.aspx

MC190400156: QUDSIA BANO

Time Left 84 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 1 of 10 (Start time: 01:56:00 PM, 07 June 2021)

Total Marks: 1

The value of $w = \frac{1}{z}$ when $z = 2 - i$ is

Select the correct option

Reload Math Equations

- $\frac{1}{5}(2 - i)$
- $\frac{1}{5}(2 + i)$

Click to Save Answer & Move to Next Question

13:57 87%
quiz.vu.edu.pk/QuizQuestion.aspx

MC190400156: QUDSIA BANO

Time Left 88 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 7 of 10 (Start time: 02:00:28 PM, 07 June 2021)

Total Marks: 1

For which values of z is $w = \frac{1}{z}$ defined?

Select the correct option

Reload Math Equations

- w is defined for all $z = 0$.
- w is defined for all $z \neq 0$.

Click to Save Answer & Move to Next Question

4

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MC190400156: QUDSIA BANO

Time Left 89 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 2 of 10 (Start time: 01:56:49 PM, 07 June 2021)

Total Marks: 1

A function V is said to be harmonic if and only if _____.

Select the correct option

Reload Math Equations

- $V_{xy} + V_{yx} = 0$
- $V_x^2 + V_y^2 = 0$
- $V_{xx} + V_{yy} = 0$
- $V_x + V_y = 0$

Click to Save Answer & Move to Next Question

3

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MC190400156: QUDSIA BANO

Time Left 89 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 6 of 10 (Start time: 01:59:46 PM, 07 June 2021)

Total Marks: 1

Harmonic conjugate of $u(x, y) = e^y \cos x$ is _____.

Select the correct option

Reload Math Equations

- $e^x \sin y + c$
- $e^y \sin x + c$
- $e^x \cos y + c$
- $-e^y \sin x + c$

Click to Save Answer & Move to Next Question

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17.8 K/s
84
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1

MC190401106: FAIZA JAVED

Time Left 89 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 02:04 PM, 07 June 2021

Question # 6 of 10 (Start time: 02:09:39 PM, 07 June 2021)

Total Marks: 1

A function f(z) is analytic function if _____ part f(z) is analytic.

Select the correct option

- (c) both (a) and (b).
- (b) imaginary
- (d) none of these.
- (a) real

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MC190400156: QUDSIA BANO

Time Left 88 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 5 of 10 (Start time: 01:59:10 PM, 07 June 2021)

Total Marks: 1

If f(z) = x + ay + i(bx + cy) is analytic, then a, b, c equals to _____.

Select the correct option

- c=1 and a= -b
- b = 1 and a = -c
- a = b = c = 1
- a= 1 and c= -b

Click to Save Answer & Move to Next Question

4

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MC190400156: QUDSIA BANO

Time Left 86 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 8 of 10 (Start time: 02:01:01 PM, 07 June 2021)

Total Marks: 1

$$If\ f(z) = \frac{4z^4 - 1}{(z^2 - 1)(z - 2)},$$ then f(z) is not analytic at z = ____.

Select the correct option

Reload Math Equations

- 1
- 3
- 4
- 5

Click to Save Answer & Move to Next Question

4

2:08 PM

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Quiz Start Time:

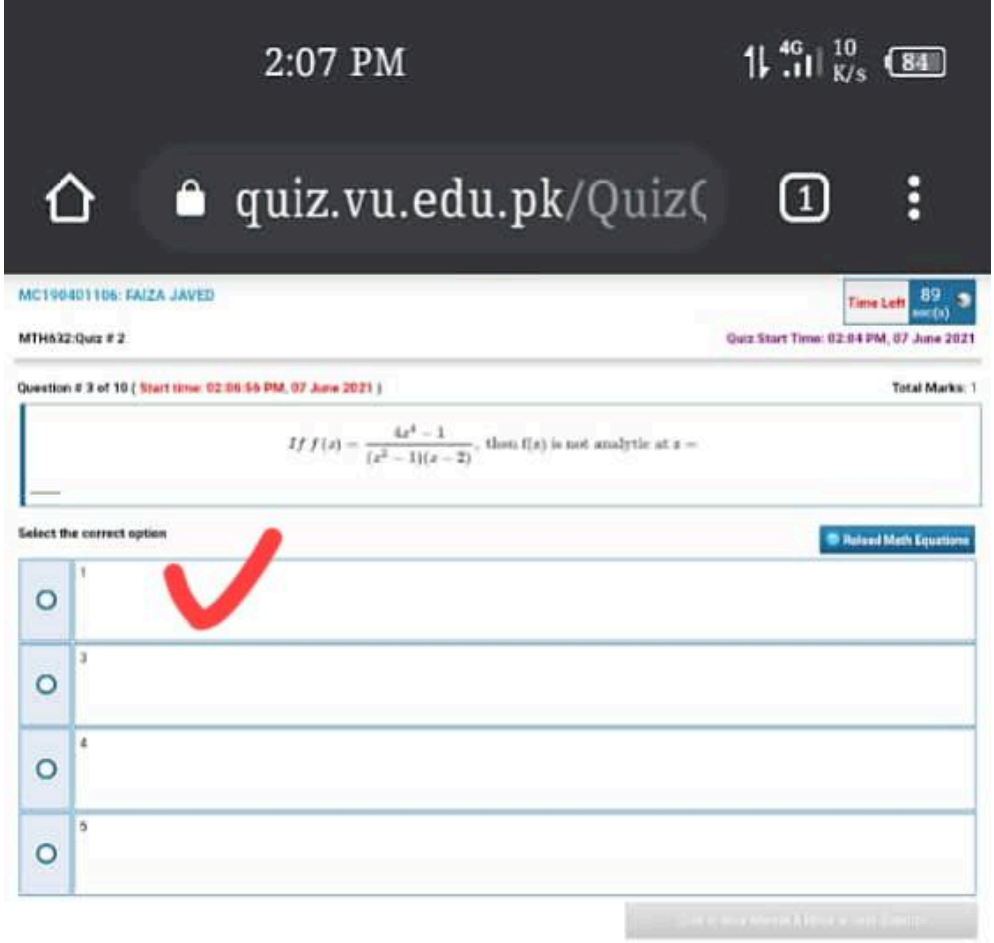
me: 02:07:43 PM, 07 June 2021)

The polar form of the complex function $f(z) = z^3$ *is*

$r^3(cos3\theta + isin3\theta)$



$r^2(cos3\theta + isin3\theta)$


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MC190401106: FAIZA JAVED
Time Left 89 sec(s)
MTH632:Quiz # 2
Quiz Start Time: 02:04 PM, 07 June 2021
Question # 3 of 10 (Start time: 02:06:55 PM, 07 June 2021)
Total Marks: 1
If $f(z) = \frac{4z^4 - 1}{(z^2 - 1)(z - 2)}$, then f(z) is not analytic at z =
Select the correct option
Reload Math Equations
1
3
4
5

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MC190400156: QUDSIA BANO

Time Left 88 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 3 of 10 (Start time: 01:57:23 PM, 07 June 2021)

Total Marks: 1

The polar form of the complex function $f(z) = \frac{1}{z}$ *is*

Select the correct option

Reload Math Equations

- $\frac{1}{r}(\cos\theta + i\sin\theta)$
- $r(\cos\theta - i\sin\theta)$
- $r(\cos\theta + i\sin\theta)$
- $\frac{1}{r}(\cos\theta - i\sin\theta)$

Click to Save Answer & Move to Next Question

3

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Quiz Start Time: 02:04 PM, 0

rt time: 02:12:11 PM, 07 June 2021)

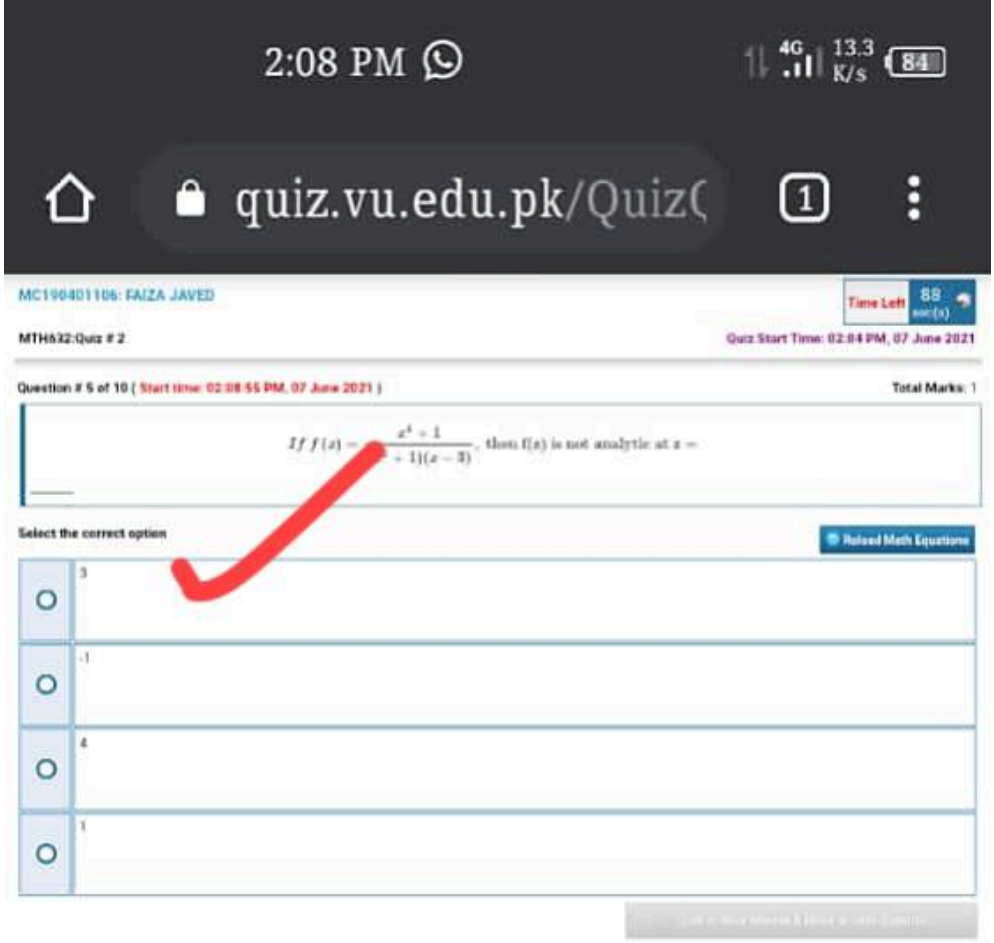
If we write the function $w = z^2 - z$ *as* $w = u(x, y) + iv(x, y)$, *then* $v(x, y) =$

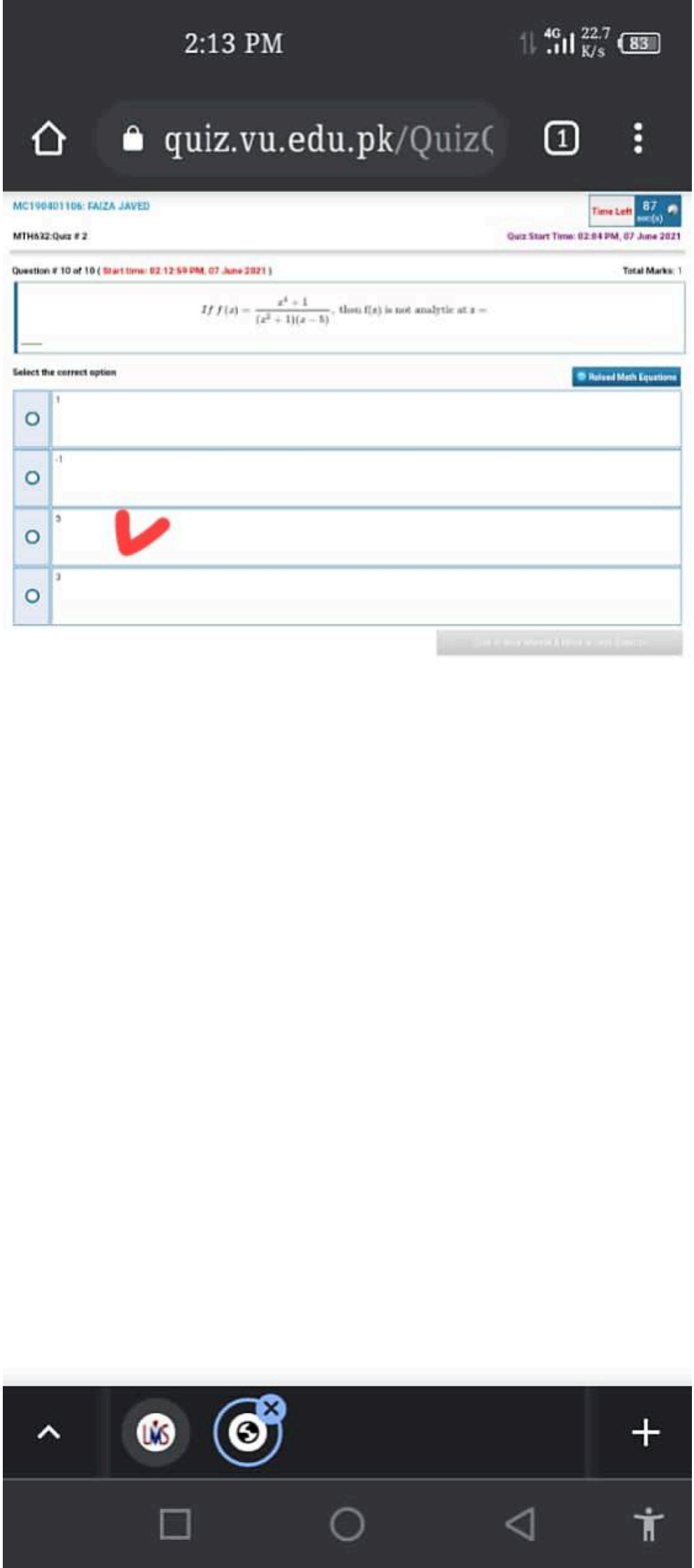
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$2xy - y$

$x^2 - x - y^2$


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84
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MC190401106: FAIZA JAVED
Time Left 88 sec(s)
MTH632:Quiz # 2
Quiz Start Time: 02:04 PM, 07 June 2021
Question # 5 of 10 (Start time: 02:08:55 PM, 07 June 2021)
Total Marks: 1
If $f(z) = \frac{z^4 + 1}{+1)(z-3)}$, then f(z) is not analytic at z =
Select the correct option
Reload Math Equations
3
-1
4
1


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22.7 K/s
83
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MC190401106: FAIZA JAVED
Time Left 87 sec(s)
MTH632:Quiz # 2
Quiz Start Time: 02:04 PM, 07 June 2021
Question # 10 of 10 (Start time: 02:12:59 PM, 07 June 2021)
Total Marks: 1
If $f(z) = \frac{z^4 + 1}{(z^2 + 1)(z - 5)}$, then f(z) is not analytic at z =
Select the correct option
Reload Math Equations
1
-1
5
3

2:10 PM

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MC190401106: FAIZA JAVED

MTH632 Quiz # 2

Quiz Start Time: 02:04 P

Question # 7 of 10 (Start time: 02:09:58 PM, 07 June 2021)

The Cauchy - Riemann equations on a pair of real - valued functions of two real variables $u(x, y)$ and $v(x, y)$ are $U_x = V_y$ and _____

Select the correct option

- $U_x = -V_y$
- $U_y = -V_x$
- $U_y = -V_y$
- $U_x = -V_x$

Uy= -Vx

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MC190400156: QUDSIA BANO

Time Left 89 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 10 of 10 (Start time: 02:02:36 PM, 07 June 2021)

Total Marks: 1

If a function f(z) = u(x,y) + iv(x,y) is analytic in a domain D, then its component functions u and v are _____ in D.

Select the correct option

- steady
- homogeneous
- equal
- harmonic



Click to Save Answer & Move to Next Question

4

13:59 87%
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MC190400156: QUDSIA BANO

Time Left 89 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 01:55 PM, 07 June 2021

Question # 9 of 10 (Start time: 02:01:44 PM, 07 June 2021)

Total Marks: 1

$$If\ f(z) = \frac{z^4+1}{(z^2+1)(z-3)},\ \text{then f(z) is not analytic at z} =$$

___.

Select the correct option

Reload Math Equations

- 1
- 2
- -1
- i

Click to Save Answer & Move to Next Question

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MC200203588: MUHAMMAD SOHAIL

Time Left 89 sec(s)

MTH632:Quiz # 2

Quiz Start Time: 02:05 PM, 07 June 2021

Question # 8 of 10 (Start time: 02:12:44 PM, 07 June 2021)

Total Marks: 1

If f(z) = x + ay + i(bx + cy) is analytic, then a, b, c equals to _____.

Select the correct option

- b = 1 and a = -c
- c=1 and a= -b
- a= 1 and c= -b
- a = b = c = 1

Click to Save Answer & Move to Next Question

□ ○ ◁

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quiz.vu.edu.pk/QuizQuest 3

07 June 2021)

The polar form of the complex function $f(z) = z^2$ *is*

$r^2(cos\theta + isin\theta)$



$r^2(cos2\theta + isin2\theta)$

Click t