Quiz List | Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=f543e3cd-1492-498f-b427-582f5c6a5f50

MTH632:Quiz # 1

Question # 10 of 10 (Start time: 08:39:50 AM, 25 May 2021)

If $f(z) = z^2$, $g(z) = \frac{1}{z}$, then g(f(3)) = _____

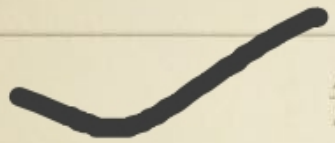
Select the correct option

- 3
- 1/3
- 9
- 1/9

Click to Save A

AM, 25 May 2021)

Consider $\lim_{z \to z_0} f(z) = A$ and $\lim_{z \to z_0} g(z) = B$. Then $\lim_{z \to z_0} \frac{f(z)}{g(z)} =$ _____.



$\frac{A}{B}, \quad B \neq 0$

$A \cdot B$

$A - B$

$A + B$

Quiz List | Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=338de11a-9a84-4c57-bd9f-853ccc1477a3

MC190403786: JAHANZAIB KHAN

MTH632 Quiz # 1

Question # 8 of 10 (Start time: 08:38:25 AM, 25 May 2021)

The three cube roots of the number -8i are

Select the correct option

- $2\exp\left[i\left(-\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right],\ k=0,1$
- $2\exp\left[i\left(-\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right],\ k=0,1,2$



Quiz List | Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=11155d91-3da2-48d9-a2fd-1f399e478ee3

MC190403786 JAHANZAIB KHAN

MTH632 Quiz # 1

Question # 7 of 10 (Start time: 08:37:47 AM, 25 May 2021)

The square roots of 25 are

Select the correct option

- $\sqrt{3}\left[i\left(\frac{\pi}{4}+\frac{2k\pi}{2}\right)\right], k \in Z$
- $\sqrt{2}\left[i\left(\frac{\pi}{4}+\frac{2k\pi}{2}\right)\right], k \in Z$

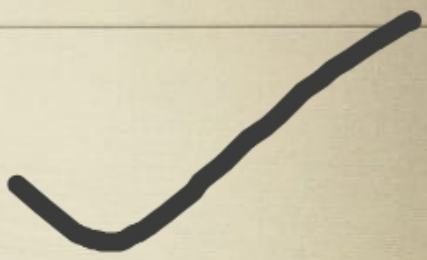
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uestion.aspx?ver=827bf2d7-ac1c-4c08-b5a1-c89cc26336bd

y 2021)

A closed disc with center z_0 and radius ε is defined by

$|z_1 - z_0| \leqslant \varepsilon$



$|z_1 - z_0| \geqslant \varepsilon$

3G 2G 29% 8:35

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 88 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 10 of 10 (Start time: 08:36:19 AM, 25 May 2021)

Total Marks: 1

The fifth roots of -1 are exactly

Select the correct option

- cis(± π/5), cis(±3π/5), and -1
- cis(π/5), cis(3π/5), cis((-3π)/5) and cis((-π)/5)
- none
- cis(± π/10), cis(±3π/10), and -1

Click to Save Answer & Move to Next Question

◁ ○ □

MC190403786: JAHANZAIB KHAN

MTH632:Quiz # 1

Question # 5 of 10 (Start time: 08:35:53 AM, 25 May 2021)

The third roots of 2i is

Select the correct option

- $\sqrt[3]{2}\left[i\left(\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right], k \in Z$
- $\sqrt{3}\left[i\left(\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right], k \in Z$

3G 2G 29% 8:35

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 88 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 9 of 10 (Start time: 08:35:38 AM, 25 May 2021) Total Marks: 1

$If\ we\ write\ \Delta z = z - z_0,\ then\ the\ equation\ f'(z_0) = \lim_{z \to z_0} \frac{f(z) - f(z_0)}{z - z_0}\ can\ be\ expressed\ as\ f'(z_0) =$ _____.

Select the correct option

Reload Math Equations

- $\lim_{z \to z_0} \frac{f(z) - f(z_0)}{\Delta z}$
- $\lim_{\Delta z \to 0} \frac{f(z_0 + \Delta z) - f(z_0)}{\Delta z}$
- $\lim_{\Delta z \to 0} \frac{f(\Delta z) - f(z_0)}{\Delta z}$
- $\lim_{\Delta z \to 0} \frac{f(z_0 + \Delta z)}{\Delta z}$

Click to Save Answer & Move to Next Question

Quiz List | Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=d03f88f7-1fe1-4ede-99ce-319f7fd3412c

MC190403786: JAHANZAIB KHAN

MTH632 Quiz # 1

Quiz Start Time:

Question # 4 of 10 (Start time: 08:35:18 AM, 25 May 2021)

If Cauchy – Riemann equations are not satisfied at a point z_0 then function is not _____ at z_0.

Select the correct option

- integrable
- differentiable

Relo

Click to Save Answer & Move to N

3G 2G 29% 8:34

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 88 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 8 of 10 (Start time: 08:34:55 AM, 25 May 2021)

Total Marks: 1

If Cauchy – Riemann equations are satisfied at a point z_0 then function_____ differentiable at z_0.

Select the correct option

Reload Math Equations

- (d) None of these.
- (c) Both (a) and (b).
- (b) may not be
- (a) may be

Click to Save Answer & Move to Next Question

Quiz List | Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=27cb68f5-b70c-49c3-b228-1869bc316687

MC190403786: JAHANZAIB KHAN

MTH632:Quiz # 1

Question # 3 of 10 (Start time: 08:34:47 AM, 25 May 2021)

If $f(z) = z^3$, $g(z) = \frac{1}{z}$, then g(f(i)) =

Select the correct option

- i^2
- i^3
- -1
- i

3G 2G 29% 8:33

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 85 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 7 of 10 (Start time: 08:34:11 AM, 25 May 2021)

Total Marks: 1

If Cauchy – Riemann equations are not satisfied at a point z_0 then function is not _____ at z_0.

Select the correct option

Reload Math Equations

- differentiable
- integrable

Click to Save Answer & Move to Next Question

3G 2G 29% 8:32

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 89 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 6 of 10 (Start time: 08:33:20 AM, 25 May 2021)

Total Marks: 1

$$If\ f(z) = z^2,\ g(z) = \frac{1}{z},\ \text{then } g(f(4)) =$$

_____.

Select the correct option

Reload Math Equations

- 1/16
- 1/4
- 4
- 16

Click to Save Answer & Move to Next Question

Quiz List | Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=fab568f4-1d58-4183-8b69-69a8ddd684a

MC190403786 .JAHANZAIB KHAN

MTH632 Quiz # 1

Question # 1 of 10 (Start time: 08:33:21 AM, 25 May 2021)

If $f(x) = x^3$, $g(x) = x + 2$, then $g(f(5)) =$

Select the correct option

- 7
- 127
- 130
- 125

Quiz List | Quiz

quiz.vu.edu.pk/QuizQuestion.aspx?ver=d9e742d2-cf49-4a64-8d98-abfdab958e44

MTH632 Quiz # 1

Question # 2 of 10 (Start time: 08:34:08 AM, 25 May 2021)

Consider $\lim_{z \to z_0} f(z) = A$ *and* $\lim_{z \to z_0} g(z) = B$. *Then* $\lim_{z \to z_0} (f(z)g(z)) =$ _____.

Select the correct option

- $A - B$
- $A + B$
- $A.B$
- $A \pm B$

3G 4G 29% 8:31

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 83 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 5 of 10 (Start time: 08:32:15 AM, 25 May 2021)

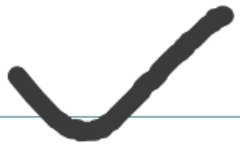
Total Marks: 1

The complex number -1-i has exponential form

Select the correct option

Reload Math Equations

- $\sqrt{2}\left[i\left(-\frac{3\pi}{2}\right)\right]$
- $\sqrt{2}\left[i\left(-\frac{3\pi}{4}\right)\right]$



Click to Save Answer & Move to Next Question

3G 4G 30% 8:30

Quiz
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BC180201528: NIMRA ABBAS

Time Left 89 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 4 of 10 (Start time: 08:31:25 AM, 25 May 2021)

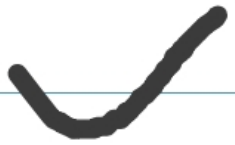
Total Marks: 1

The three cube roots of the number -8i are

Select the correct option

Reload Math Equations

- $2\exp\left[i\left(-\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right],\ k=0,1$
- $2\exp\left[i\left(-\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right],\ k=0,1,2$



Click to Save Answer & Move to Next Question

3G 4G 30% 8:29

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 89 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 3 of 10 (Start time: 08:30:13 AM, 25 May 2021)

Total Marks: 1

$If\ f(z) = z^3,\ g(z) = \frac{1}{z},\ \text{then}\ g(f(i)) =$

_____.

Select the correct option

Reload Math Equations

- i^2
- i^3
- -1
- i

Click to Save Answer & Move to Next Question

$\frac{\partial}{\partial x}$

And $-K_0(L)\frac{\partial u}{\partial x}(L,t) = -H\left(u(L,t) - u_B(t)\right)$

Here H is the **heat transfer coefficient**. Note that if $H = 0$, we are dealing with an insulated edge.

On the other hand, if we have $H = \infty$, we would have a constant temperature at the edge.

Lagrange's Equation:

We have $\frac{\partial(u,v)}{\partial(y,z)}p + \frac{\partial(u,v)}{\partial(z,x)}q = \frac{\partial(u,v)}{\partial(x,y)}$

This can be expressed in the form $Pp + Qq = R$, where P, Q and R are functions of x, y and z. This partial differential equation is known as **Lagrange's equation.**

Method to solve $Pp + Qq = R$

In order to solve the equation $Pp + Qq = R$

1. Form the auxiliary equation
   $\frac{dx}{P} = \frac{dy}{Q} = \frac{dz}{R}$
2. Solve these auxiliary equations by the method of grouping or by the method of multiples or both to get two independent solutions $u = c_1$ and $v = c_2$.
3. Then $\phi(u,v) = 0$ or $u = f(v)$ or $v = f(u)$ is the general solution of the equation $Pp + Qq = R$.

3G 3G 30% 8:28

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 87 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 1 of 10 (Start time: 08:28:55 AM, 25 May 2021)

Total Marks: 1

$$If\ f(z) = z^3,\ g(z) = z + 2,\ \text{then}\ g(f(5)) =$$

_____.

Select the correct option

Reload Math Equations

- 127
- 125
- 130
- 7

Click to Save Answer & Move to Next Question

$$\therefore i^2 = -1$$

$$\frac{1}{i^3}$$

$$= \frac{1}{-i} \quad i$$

$$= -i =$$

of Continuity

ntinuous throughout a
ounded, there exists a
that

$$\frac{1}{-i} \times \frac{i}{i}$$

$$= \frac{i}{-i^2}$$

$$= \frac{i}{-(-1)}$$

$$= \frac{i}{1} = i$$

8:27 95
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 87 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 10 of 10 (Start time: 08:27:07 AM, 25 May 2021)

Total Marks: 1

In general, 1^(1/n) is

Select the correct option

Reload Math Equations

- $\exp\left(i\frac{2k\pi}{n}\right),\ k=0,1,\ldots,n-1$
- $\exp\left(i\frac{2\pi}{n}\right)$

Click to Save Answer & Move to Next Question

3G 4G 30% 8:29

Quiz
quiz.vu.edu.pk

BC180201528: NIMRA ABBAS

Time Left 88 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:28 AM, 25 May 2021

Question # 2 of 10 (Start time: 08:29:34 AM, 25 May 2021)

Total Marks: 1

If $f(z) = z^3$, $g(z) = z + 2$, then $g(f(4)) =$

_____.

Select the correct option

Reload Math Equations

- 66
- 4
- 16
- 64

Click to Save Answer & Move to Next Question

8:26 95
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 87 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 9 of 10 (Start time: 08:26:16 AM, 25 May 2021)

Total Marks: 1

The third roots of 2i is

Select the correct option

Reload Math Equations

- $\sqrt[3]{2}\left[i\left(\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right], k \in \mathbb{Z}$
- $\sqrt{3}\left[i\left(\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right], k \in \mathbb{Z}$

Click to Save Answer & Move to Next Question

8:25 95
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 87 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 8 of 10 (Start time: 08:25:18 AM, 25 May 2021) Total Marks: 1

A closed disc with center z_0 and radius ε is defined by

Select the correct option

Reload Math Equations

- $|z_1 - z_0| \geqslant \varepsilon$
- $|z_1 - z_0| \leqslant \varepsilon$

Click to Save Answer & Move to Next Question

8:24 95
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 85 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 7 of 10 (Start time: 08:24:14 AM, 25 May 2021)

Total Marks: 1

The derivative of f at z_0 i.e. $f'(z_0) = \lim_{z \to z_0} \frac{f(z) - f(z_0)}{z - z_0}$ provided the limit exists. The function f must be defined is a neighbourhood of _____.

Select the correct option

Reload Math Equations

- z_0
- z

Click to Save Answer & Move to Next Question

LMS

8:23 95
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 88 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 6 of 10 (Start time: 08:23:17 AM, 25 May 2021) Total Marks: 1

The distance between two complex numbers z_1 and z_2 is

Select the correct option

Reload Math Equations

- $|z_1 - z_2|$
- $|z_1 + z_2|$

Click to Save Answer & Move to Next Question

8:22 95
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 88 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 5 of 10 (Start time: 08:22:12 AM, 25 May 2021)

Total Marks: 1

$Consider \lim_{z \to z_0} f(z) = A \ and \lim_{z \to z_0} g(z) = B. \ Then \lim_{z \to z_0} (f(z)g(z)) =$ _____.

Select the correct option

Reload Math Equations

- $A - B$
- $A + B$
- $A \pm B$
- $A.B$

Click to Save Answer & Move to Next Question

8:21 95
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 88 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 4 of 10 (Start time: 08:21:20 AM, 25 May 2021)

Total Marks: 1

The three cube roots of the number -8i are

Select the correct option

Reload Math Equations

- $2\exp\left[i\left(-\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right],\ k=0,1,2$
- $2\exp\left[i\left(-\frac{\pi}{6}+\frac{2k\pi}{3}\right)\right],\ k=0,1$

Click to Save Answer & Move to Next Question

8:20 96
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 82 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 3 of 10 (Start time: 08:20:11 AM, 25 May 2021)

Total Marks: 1

$If\ f(z) = z^3,\ g(z) = z + 2,\ \text{then}\ g(f(4)) =$

_____.

Select the correct option

Reload Math Equations

- 4
- 66
- 64
- 16

Click to Save Answer & Move to Next Question

8:19 96
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 87 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 2 of 10 (Start time: 08:19:04 AM, 25 May 2021)

Total Marks: 1

$$If\ f(z) = z^2,\ g(z) = \frac{1}{z},\ \text{then } g(f(3)) = _____.$$

Select the correct option

Reload Math Equations

- 1/3
- 3
- 1/9
- 9

Click to Save Answer & Move to Next Question

8:17 96
quiz.vu.edu.pk/C 98

MC190400398: IMRAN SAEED BHUTTA

Time Left 87 sec(s)

MTH632:Quiz # 1

Quiz Start Time: 08:17 AM, 25 May 2021

Question # 1 of 10 (Start time: 08:17:44 AM, 25 May 2021)

Total Marks: 1

$If\ f(z) = z^3,\ g(z) = z + 2,\ \text{then}\ g(f(5)) =$

_____.

Select the correct option

Reload Math Equations

- 127
- 125
- 130
- 7

Click to Save Answer & Move to Next Question