# PEN PALS

Mth632 - Quiz 3 solved 2021

Question # 5 of 10 ( Start time: 05:10:23 PM, 13 August 2021 ) Total Marks: 1

*Let $z_o$ and $z_1$ be two points in simply connected domain D and f be an analytic complex valued function in D and C be contour by joining $z_o$ and $z_1$ then*



Select the correct option

Reload Math Equations

- $\int_{z_o}^{z_1} f(s)ds = F(z_1) + F(z_o)$
- $\int_{z_o}^{z_1} f(s)ds = F(z_o) + F(z_o)$
- $\int_{z_o}^{z_1} f(s)ds = F(z_o) - F(z_1)$
- $\int_{z_o}^{z_1} f(s)ds = F(z_1) - F(z_o)$

Click to Save Answer & Move to Next Question

Question # 3 of 10 ( Start time: 05:09:03 PM, 13 August 2021 ) Total Marks: 1

Using Cauchy integral formula to compute the value of integral

$$\int_C \frac{z-2}{z+i}dz \; where \; f(z) = z-2 \; and \; z_o = -i$$

Select the correct option

Reload Math Equations

- $2\pi(1-2i)$
- $2\pi(-1+2i)$
- $2\pi(-1-2i)$
- $2\pi(1+2i)$

Click to Save Answer & Move to Next Question

Evaluate $\frac{1}{2\pi}\int_0^{2\pi} \exp(\frac{i\pi}{3} + 5e^{i\theta})d\theta$ if $f(z) = \exp(z)$ then we get,

Select the correct option

Reload Math Equations

- $\cos\frac{\pi}{3} + i\sin\frac{\pi}{3}$
- $\sin\frac{\pi}{3} + i\cos\frac{\pi}{3}$
- $\cos\frac{\pi}{3} - i\sin\frac{\pi}{3}$
- $\cos\frac{\pi}{3} + \sin\frac{\pi}{3}$

Click to Save Answer & Move to Next Question

uestion # 10 of 10 ( Start time: 05:00:12 PM, 13 August 2021 )

Let $C_1$ and $C_2$ be two simple closed contours with positively oriented s.t $C_1$ is exterior and $C_2$ is an interior. If $f(z)$ is analytic in domai

elect the correct option

- ○ $\int_{C_1} f(z)dz = \int_{C_2} f(z)dz$
- ○ $\int_{C_1} f(z)dz > \int_{C_2} f(z)dz$
- ○ $\int_{C_1} f(z)dz \neq \int_{C_2} f(z)dz$
- ○ $\int_{C_1} f(z)dz < \int_{C_2} f(z)dz$

f 10 ( Start time: 05:00:12 PM, 13 August 2021 )

$C_2$ be two simple closed contours with positively oriented s.t $C_1$ is exterior and $C_2$ is an interior. If $f(z)$ is analytic in domai

ct option

$\int_{C_1} f(z)dz = \int_{C_2} f(z)dz$

$\int_{C_1} f(z)dz > \int_{C_2} f(z)dz$

$\int_{C_1} f(z)dz \neq \int_{C_2} f(z)dz$

$\int_{C_1} f(z)dz < \int_{C_2} f(z)dz$

Question # 7 of 10 ( Start time: 04:58:14 PM, 13 August 2021 ) Tot

Each simple closed curve C divides the plane into interio and exterior domains where one is bounded and other is unbounded. This statement is of .....

Select the correct option

- Green's Theorem
- Cauchy Theorem
- Cauchy Goursat Theorem
- Jordan Curve Theorem



Click to Save Answer & Move to Next Questi

MTH632:Quiz # 3

Quiz Start Time: 04:50 PM, 13 August 2021

Time Left sec(s)

Question # 10 of 10 ( Start time: 04:57:35 PM, 13 August 2021 ) Total Marks: 1

$$\text{Evaluate } \int_C f(z)dz \text{ where } C: z(t) = e^{it} \text{ for } 0 \leq t \leq \pi \text{ and } f(z) = 1/z$$

Select the correct option

Reload Math Equations

- $i\pi$
- $-2\pi i$
- $2\pi i$
- $-\pi i$

Click to Save Answer & Move to Next Question

Question # 9 of 10 ( Start time: 04:56:23 PM, 13 August 2021 )

Total Marks: 1

Each simple closed curve C divides the plane into two domains (connected open sets). One of which is bounded and is called _________ of C.

Select the correct option

- interior
- exterior



Click to Save Answer & Move to Next Question

Question # 6 of 10 ( Start time: 04:53:27 PM, 13 August 2021 ) Total Marks: 1

Using Cauchy integral formula to compute the value of integral

$$\int_C \frac{z-2}{z+i}dz \text{ where } f(z) = z-2 \text{ and } z_0 = -i$$

Select the correct option

Reload Math Equations

- $2\pi(-1+2i)$
- $2\pi(1+2i)$
- $2\pi(-1-2i)$
- $2\pi(1-2i)$

Click to Save Answer & Move to Next Question

Question # 7 of 10 ( Start time: 04:54:55 PM, 13 August 2021 ) Total Marks: 1

Mathematically, the functions in Green's theorem will be

Select the correct option

- Continuous derivatives
- Discrete derivatives
- Discrete partial derivatives
- Continuous partial derivatives ✓



Click to Save Answer & Move to Next Question

Question # 8 of 10 ( Start time: 04:55:37 PM, 13 August 2021 ) Total Marks: 1

A curve is said to be .... if it is constructed by joining finitely many smooth curves end to end

Select the correct option

- disconnected
- contour ✓
- continuous
- discontinuous

Click to Save Answer & Move to Next Question

Question # 5 of 10 ( Start time: 04:52:55 PM, 13 August 2021 ) Total Marks: 1

Evaluate the integral $\int_C f(z)dz$ where $C: z(t) = e^{it}$ for $0 \leq t \leq \pi$ and $f(z) = 1/z^2$

Select the correct option

Reload Math Equations

- $1 - e^{-i\pi}$ ✔
- $1 + e^{-i\pi}$
- $1 - e^{i\pi}$
- $1 + e^{i\pi}$



Click to Save Answer & Move to Next Question

Question # 4 of 10 ( Start time: 04:52:17 PM, 13 August 2021 )

Total Marks: 1

$$\int_C \frac{f(z)}{(z+1)^4}\,dz \text{ where } z = e^{2t} \text{ then this integral is equal to}$$

Select the correct option

Reload Math Equations

- $\frac{\pi i}{3!} f^{(3)}(1)$
- $\frac{2\pi i}{3!} f^{(3)}(1)$
- $\frac{\pi i}{3!} f^{(3)}(-1)$
- $\frac{2\pi i}{3!} f^{(3)}(-1)$

Click to Save Answer & Move to Next Question

If the interior of every simple closed contour C is contained in the domain D , then domain is said to be....

Select the correct option

- None of above
- Unbounded
- Disconnected
- Simple connected ✓

Click to Save Answer & Move to Next Question

**Question # 6 of 10 ( Start time: 04:11:08 PM, 13 August 2021 )** **Total Marks: 1**

If C is positively oriented unit circle i.e. {C: |z|=1} then

$$\int_C \frac{e^{2z}}{z^3}\,dz$$

is

**Select the correct option**

Reload Math Equations

- $4\pi i$
- $2\pi i$
- $6\pi i$
- $3\pi i$

Click to Save Answer & Move to Next Question

MTH632:Quiz # 3

Quiz Start Time: 04:50 PM, 13 August 2021

Question # 1 of 10 ( Start time: 04:50:03 PM, 13 August 2021 )

Total Marks: 1

If function $f$ is continuous in simple connected domain $D$ and $\int_C f(z)dz$ for every closed contour $C$ in $D$, then $f$ is analytic in $D$.

This statement is of:

Select the correct option

Reload Math Equations

- Green's Theorem
- Morera's Theorem
- Cauchy Goursat Theorem
- Cauchy theorem

Click to Save Answer & Move to Next Question

MTH632:Quiz # 3

Quiz Start Time: 04:50 PM, 13 August 2021

Question # 2 of 10 ( Start time: 04:50:53 PM, 13 August 2021 )

Total Marks: 1

If C is simple closed contour with positively oriented such that fixed complex value $z_0$ lies interior to C, then for integer $n \neq 1$ we have,

$$\int_C \frac{1}{(z - z_0)^n} dz =$$

Select the correct option

Reload Math Equations

- 0
- $\pi i$
- $-2\pi i$
- $2\pi i$ ✔



Click to Save Answer & Move to Next Question

sec(s)

MTH632:Quiz # 3

Quiz Start Time: 04:03 PM, 13 August 2021

Question # 2 of 10 ( Start time: 04:04:16 PM, 13 August 2021 )

Total Marks: 1

$$Evaluate \int_C f(z)dz \quad where\ C : z(t) = e^{it}\ for\ 0 \leqslant t \leqslant \pi\ and f(z) = 1/z$$

Select the correct option

Reload Math Equations

- $-2\pi i$
- $-\pi i$
- $2\pi i$
- $i\pi$

Click to Save Answer & Move to Next Question

Question # 4 of 10 ( Start time: 04:06:54 PM, 13 August 2021 ) Total Marks: 1

$$Evaluate\ the\ integral\ \int_C f(z)dz\quad where\ C: z(t) = e^{it}\ for\ 0 \leqslant t \leqslant \pi\ and f(z) = 1/z^2$$

Select the correct option

Reload Math Equations

- $1 + e^{i\pi}$
- $1 - e^{-i\pi}$
- $1 - e^{i\pi}$
- $1 + e^{-i\pi}$



Click to Save Answer & Move to Next Question

MTH632:Quiz # 3

Quiz Start Time: 04:05 PM, 13 August 2021

Question # 7 of 10 ( Start time: 04:11:48 PM, 13 August 2021 )

Total Marks: 1

$Consider\ contour\ C : z(t) = e^{it} = Cos\ t\ + i\ Sint\ be\ counter\ clockwise\ where\ -\pi/2 \leqslant t \leqslant \pi/2\ then\ the\ integral$

$$\int_C \bar{z}(t)dz =$$

Select the correct option

Reload Math Equations

- $-\pi$
- $\pi$
- $-i\pi$
- $i\pi$



Click to Save Answer & Move to Next Question

Question # 3 of 10 ( Start time: 10:55:08 AM, 13 August 2021 )

Using Cauchy integral formula to compute the value of integral

$$\int_C \frac{z-2}{z+i} dz \text{ where } f(z) = z - 2 \text{ and } z_o = -i$$

**Select the correct option**

| | |
|---|---|
| ○ | $2\pi(-1-2i)$ |
| ○ | $2\pi(1-2i)$ |
| ○ | $2\pi(1+2i)$ |
| ○ | $2\pi(-1+2i)$ |

Question # 6 of 10 ( Start time: 11:05:38 AM, 13 August 2021 )

If C is positively oriented unit circle i.e. {C: |z|=1} then

$$\int_C \frac{e^{2z}}{z^3} dz$$

is

**Select the correct option**

- $3\pi i$
- $2\pi i$
- $6\pi i$
- $4\pi i$

$$Evaluate \int_0^{2\pi} \sin(\frac{\pi}{4} + 3e^{i\theta})d\theta \; if \; f(z) = \sin \; z$$

$2\pi$

$\sqrt{2\pi}$

$\frac{\pi}{\sqrt{2}}$

$\frac{\pi}{2}$

Click to Save Answe

sec(s)

MTH632:Quiz # 3

Quiz Start Time: 04:05 PM, 13 August 2021

Question # 3 of 10 ( Start time: 04:07:55 PM, 13 August 2021 )

Total Marks: 1

$$Evaluate \int_C f(z)dz \; where \; C : z(t) = (x+iy)t \; for \; a \leqslant t \leqslant b \; and \; f(z) = \frac{1}{z}$$

Select the correct option

Reload Math Equations

- $\ln b - \ln a$
- $\frac{(\ln a)}{(\ln b)}$
- $\ln b + \ln a$
- $(\ln a)(\ln b)$

Click to Save Answer & Move to Next Question

MTH632:Quiz # 3

Quiz Start Time: 04:05 PM, 13 August 2021

Question # 9 of 10 ( Start time: 04:14:00 PM, 13 August 2021 )

Total Marks: 1

If function $f$ is continuous in simple connected domain $D$ and $\int_C f(z)dz$ for every closed contour $C$ in $D$, then $f$ is analytic in $D$.

This statement is of:

Select the correct option

Reload Math Equations

- Cauchy Goursat Theorem
- Cauchy theorem
- Morera's Theorem
- Green's Theorem



Click to Save Answer & Move to Next Question

MTH632:Quiz # 3

Quiz Start Time: 04:03 PM, 13 August 2021

Question # 8 of 10 ( Start time: 04:13:18 PM, 13 August 2021 )

Total Marks: 1

Morera's Theorem is the converse of ...

Select the correct option

- Guass Mean value Theorem
- Cauchy Goursat Theorem ✓
- De Movire's theorem
- Green's Theorem

Click to Save Answer & Move to Next Question

MTH632:Quiz # 3

Quiz Start Time: 04:05 PM, 13

Question # 2 of 10 ( Start time: 04:06:45 PM, 13 August 2021 )

*Let $f(t)$ be continuous function on contour $C$ and $L$ be length of $C$. For all $t$ in contour $C$, $|f(t)| \leqslant M$ then*

Select the correct option

Reload Ma

- $\left| \int_C f(t)\, dt \right| > ML$
- $\left| \int_C f(t)\, dt \right| < ML$
- $\left| \int_C f(t)\, dt \right| \leqslant ML$
- $\left| \int_C f(t)\, dt \right| \geqslant ML$

Click to Save Answer & Move to Next Que

MTH632:Quiz # 3

Quiz Start Time: 04:03 PM, 13 August 2021

Question # 6 of 10 ( Start time: 04:11:44 PM, 13 August 2021 )

Total Marks: 1

If $f(z)$ is an analytic function in domain D then for $n \geqslant 0$ where n is a positive integer,

Select the correct option

Reload Math Equations

- None of above
- $f^{(n)}(z)$ is analytic in disconnected D
- $f^{(n)}(z)$ is not analytic in simple connected D
- $f^{(n)}(z)$ is an analytic in simple connected D ✓

Click to Save Answer & Move to Next Question

Question # 8 of 10 ( Start time: 04:12:53 PM, 13 August 2021 ) Total Marks: 1

A domain D that is not simply connected is...

Select the correct option

- multiply connected ✓
- doubly connected
- none of above
- triply connected

Click to Save Answer & Move to Next Question

PM, 13 August 2021 )

*ion and C and* $-C$ *be the contours with same geometrical represent*

$$\int_C f(-z)dz$$

$$-\int_C f(z)dz$$

$$\int_C f(z)dz$$

$$-\int_{-C} f(z)dz$$

MTH632:Quiz # 3

Quiz Start Time: 04:03 PM, 13 August 2021

Question # 2 of 10 ( Start time: 04:04:16 PM, 13 August 2021 )

Total Marks: 1

$$Evaluate \int_C f(z)dz \quad where\ C: z(t) = e^{it}\ for\ 0 \leqslant t \leqslant \pi\ and\ f(z) = 1/z$$

Select the correct option

Reload Math Equations

- $-2\pi i$
- $-\pi i$
- $2\pi i$
- $i\pi$

Click to Save Answer & Move to Next Question

Question # 1 of 10 ( Start time: 04:03:16 PM, 13 August 2021 )

Total Marks: 1

$$Let\ \alpha\ lies\ in\ the\ interior\ of\ contour\ C\ and$$
$$P_n(z) = a_n z^n + a_{n-1} z^{n-1} + a_{n-2} z^{n-2} + \ldots + a_1 z + a_o z^0$$
$$then\ the\ value\ of\ \int_C \frac{P_n(z)}{z-\alpha} dz\ is \ldots\ when\ n = 3$$

Select the correct option

Reload Math Equations

- $2\pi i P_n(\alpha)$
- $2\pi P_n(\alpha)$
- $2\pi P_3(\alpha)$
- $2\pi i P_3(\alpha)$

Click to Save Answer & Move to Next Question

Question # 10 of 10 ( Start time: 04:03:08 PM, 13 August 2021 ) Total Marks: 1

A domain D that is not simply connected is...

Select the correct option

- none of above
- doubly connected
- triply connected
- multiply connected ✓

Click to Save Answer & Move to Next Question

Question # 9 of 10 ( Start time: 04:02:31 PM, 13 August 2021 ) Total Marks: 1

A curve C is said to be a contour if it is constructed by joining finitely many smooth curves end to end.

Select the correct option

- False
- True

Click to Save Answer & Move to Next Question

**Total Marks:** 1

ntours with same geometrical representation but opposite in direction. Then $\int_{-C} f(z)dz =$

Reload Math Equations

$\int_{C} f(-z)dz$

$\int_{C} f(z)dz$

$-\int_{C} f(z)dz$ ✓

$-\int_{-C} f(z)dz$

Click to Save Answer & Move to Next Question

MTH632:Quiz # 3 Quiz Start Time: 10:51 AM, 13 August 2021

Question # 2 of 10 ( Start time: 10:53:24 AM, 13 August 2021 ) Total Marks: 1

*If* $f(z)$ *is complex valued function and* $C$ *and* $-C$ *be the contours with same geometrical representation but opposite in direction. Then* $\int_{-C} f(z)dz =$

Select the correct option

Reload Math Equations

- $\int_{C} f(-z)dz$
- $\int_{C} f(z)dz$
- $-\int_{C} f(z)dz$
- $-\int_{-C} f(z)dz$

Click to Save Answer & Move to Next Question

Question # 3 of 10 ( Start time: 10:55:08 AM, 13 August 2021 )

Using Cauchy integral formula to compute the value of integral

$$\int_C \frac{z-2}{z+i}dz \text{ where } f(z) = z-2 \text{ and } z_o = -i$$

**Select the correct option**

- $2\pi(-1-2i)$
- $2\pi(1-2i)$
- $2\pi(1+2i)$
- $2\pi(-1+2i)$

MTH632:Quiz # 3

Question # 1 of 10 ( Start time: 10:51:36 AM, 13 August 2021 )

If the function f(z) is analytic in domain D and simple connected contour C lies in D then

Select the correct option

$$\int_C f(z)dz = 0$$

$$\int_C f(-z)dz = 0$$

$$\int_C f(\bar{z})dz = 0$$

$$\int_C f(z')dz = 0$$

Click t

Morera's Theorem is the converse of ...

**Select the correct option**

- Guass Mean value Theorem
- De Movire's theorem
- Green's Theorem
- Cauchy Goursat Theorem ✓

**Question # 1 of 10** ( Start time: 02:00:42 PM, 13 August 2021 )

If function $f$ is continuous in simple connected domain $D$ and $\int_C f(z)dz$ for every closed contour $C$ in $D$, then $f$ is analytic in $D$.

This statement is of:

**Select the correct option**

- Cauchy theorem
- Green's Theorem
- Morera's Theorem
- Cauchy Goursat Theorem

Type here to search

22°C Sunny

uchy integral formula to compute the value of integral

$$\int_C \frac{z-2}{z+i}\,dz \text{ where } f(z) = z - 2 \text{ and } z_0 = -i$$

correct option

$2\pi(-1+2i)$

$2\pi(1-2i)$

$2\pi(1+2i)$

$2\pi(-1-2i)$

Question # 3 of 10 ( Start time: 04:35:29 PM, 13 August 2021 )

Each simple closed curve C divides the plane into two domains (connected open sets). One of which is unbounded and is called the ________ of C

Select the correct option

- interior
- exterior

Question # 2 of 10 ( Start time: 04:34:31 PM, 13 August 2021 )

*Consider contour* $C : z(t) = e^{it} = Cos\,t + i\,Sint$ *be counter clockwise where* $-\pi/2 \leqslant t \leqslant \pi/2$ *then the integral*

$$\int_C z(t)dz =$$

Select the correct option

Reload Math

- 1
- -1
- 0 ✓
- 2

Type here to search

ps Query VU – Query... https://vulms.vu.ed... https://vulms.vu.ed... google translater

ion # 2 of 10 ( Start time: 04:36:24 PM, 13 August 2021 )

*Let $f(t) = u(t) + iv(t)$ be a piece – wise continuous complex valued function of real variable $t$, $a \leqslant t \leqslant b$ then*

ct the correct option

- $\left|\int_a^b f(t)dt\right| \leqslant \int_a^b |f(t)|dt$ ✓
- $\left|\int_a^b f(t)dt\right| \geqslant \int_a^b |f(t)|dt$
- $\left|\int_a^b f(t)dt\right| > \int_a^b |f(t)|dt$
- $\left|\int_a^b f(t)dt\right| < \int_a^b |f(t)|dt$

Click To Save Answer

MTH632 Quiz # 3

**Question # 5 of 10 (** Start time: 04:37:30 PM, 13 August 2021 **)**

Each simple closed curve C divides the plane into interior and exterior domains where one is bounded and other is unbounded. This statement is of ...

**Select the correct option**

- Cauchy Goursat Theorem
- Jordan Curve Theorem
- Green's Theorem
- Cauchy Theorem

Type here to search

*If function $f$ is an analytic function in simple connected domain where $C_R(z_0) = \{z(t) : |z - z_0| = R\}, 0 \leq t \leq 2\pi$ and $R$ be the radius of circle, then*

the correct option

$$f(z_0) = \frac{1}{2\pi i}\int_0^{2\pi} f(z_0 + Re^{it})dt$$

$$f(z_0) = \frac{1}{4\pi}\int_0^{2\pi} f(z_0 + Re^{it})dt$$

$$f(z_0) = \frac{1}{\pi}\int_0^{2\pi} f(z_0 + Re^{it})dt$$

$$f(z_0) = \frac{1}{2\pi}\int_0^{2\pi} f(z_0 + Re^{it})dt$$

If C is simple closed contour with positively oriented such that fixed complex value $z_0$ lies interior to C, then for integer n = 1 we have,

$$\int_C \frac{1}{(z - z_0)^n} dz =$$

Select the correct option

- 0
- $\pi i$
- $2\pi i$
- $-2\pi i$

Click to Save An

PM, 13 August 2021 )

*Let $z_o$ and $z_1$ be two points in simply connected domain D and f be an analytic complex valued function in D and C be contour by joining $z_o$ and $z_1$ then*

$$\int_{z_o}^{z_1} f(s)ds = F(z_o) + F(z_o)$$

$$\int_{z_o}^{z_1} f(s)ds = F(z_1) + F(z_o)$$

$$\int_{z_o}^{z_1} f(s)ds = F(z_o) - F(z_1)$$

$$\int_{z_o}^{z_1} f(s)ds = F(z_1) - F(z_o)$$

Click to Save

$$Evaluate \int_0^{2\pi} \sin\left(\frac{\pi}{4} + 3e^{i\theta}\right)d\theta \; if \; f(z) = \sin\ z$$

$\sqrt{2\pi}$

$2\pi$

$\frac{\pi}{2}$

$\frac{\pi}{\sqrt{2}}$

*Let* $\alpha$ *lies in the* int *erior of contour* $C$ *and*

$$P_n(z) = a_n z^n + a_{n-1} z^{n-1} + a_{n-2} z^{n-2} + \ldots + a_1 z + a_0 z^0$$

*then the value of* $\int_C \frac{P_n(z)}{z-\alpha} dz$ *is ... when* $n = 3$

$2\pi P_3(\alpha)$

$2\pi i P_3(\alpha)$

$2\pi P_n(\alpha)$

$2\pi i P_n(\alpha)$

Evaluate $\int_C f(z)dz$ where $C: z(t) = (x+iy)t$ for $a \leqslant t \leqslant b$ and $f(z) = z$

Reload Math Equations

$$\frac{(b^2 - a^2)(x+iy)^2}{2}$$

$$\frac{(b^2 + a^2)(x+iy)}{2}$$

$$\frac{(b^2 - a^2)(x+iy)}{2}$$

$$\frac{(b^2 + a^2)(x+iy)^2}{2}$$

Evaluate the integral $\int_C f(z)dz$ where $C: z(t) = e^{it}$ for $0 \leqslant t \leqslant \pi$ and $f(z) = 1/z^2$

Reload

$1 - e^{i\pi}$

$1 + e^{-i\pi}$

$1 + e^{i\pi}$

$1 - e^{-i\pi}$

Evaluate $\frac{1}{2\pi}\int_0^{2\pi} \exp(\frac{i\pi}{3} + 5e^{i\theta})d\theta$ if $f(z) = \exp(z)$ then we get,

$\cos\frac{\pi}{3} + i\sin\frac{\pi}{3}$

$\cos\frac{\pi}{3} + \sin\frac{\pi}{3}$

$\sin\frac{\pi}{3} + i\cos\frac{\pi}{3}$

$\cos\frac{\pi}{3} - i\sin\frac{\pi}{3}$

$\int_C \frac{f(z)}{(z+1)^4} dz$ where $z = e^{2z}$ then this integral is equal to

$\frac{\pi i}{3!} f^{(3)}(1)$

$\frac{\pi i}{3!} f^{(3)}(-1)$

$\frac{2\pi i}{3!} f^{(3)}(1)$

$\frac{2\pi i}{3!} f^{(3)}(-1)$

MTH632 Quiz # 3

Question # 7 of 10 ( Start time: 05:10:35 PM, 13 August 2021 )

If C is simple closed contour and D be the domain that forms interior of C. P and Q are continuous function and their partial derivatives are also continuous then

Select the correct option

- $\int_C [P(x,y)dx - Q(x,y)dy] = \iint_D (Q_x(x,y) - P_y(x,y))dxdy$
- $\int_C [P(x,y)dx + Q(x,y)dy] = \iint_D (Q_x(x,y) + P_y(x,y))dxdy$
- $\int_C [P(x,y)dx + Q(x,y)dy] = \iint_D (Q_x(x,y) - P_y(x,y))dxdy$ ✔
- $\int_C [P(x,y)dx - Q(x,y)dy] = \iint_D (Q_x(x,y) + P_y(x,y))dxdy$