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Question # 1 of 10 (Start time: 12:58:10 PM, 27 August 2021)

For an inner product space <x+y,z>=.....

Solved by M@I!k

Select the correct option

0

0

| <x,z> - <y,z></y,z></x,z> | Download More Quizzes Files From |
|---------------------------|----------------------------------|
| | VIJAnswer com |

None of these

<x,z> . <y,z>

GRALINE WEARING & Month Name Str.

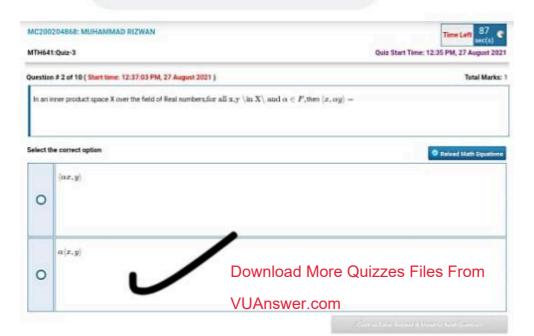
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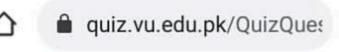


| Question | n # 1 of 10 (Start time: 12:38:27 PM, 27 August 2021) | Total Marks: 1 |
|-----------|---|-----------------------|
| Every o | complete Inner product space is | |
| | Download More Quizzes Files From | |
| Select th | ne correct option VUAnswer.com | Reload Math Equations |
| 0 | Euclidean space | |
| 0 | Complex space | |
| 0 | Banach space | |
| 0 | Hilbert space | |

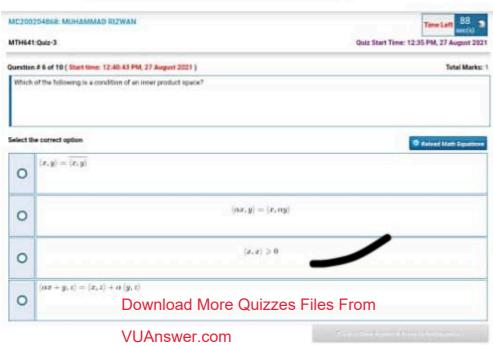
Olick to Save Answer & Move to Next Overtion.

 $\langle y, -x \rangle$

12:40 PM







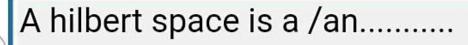












Select the correct option

0

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0

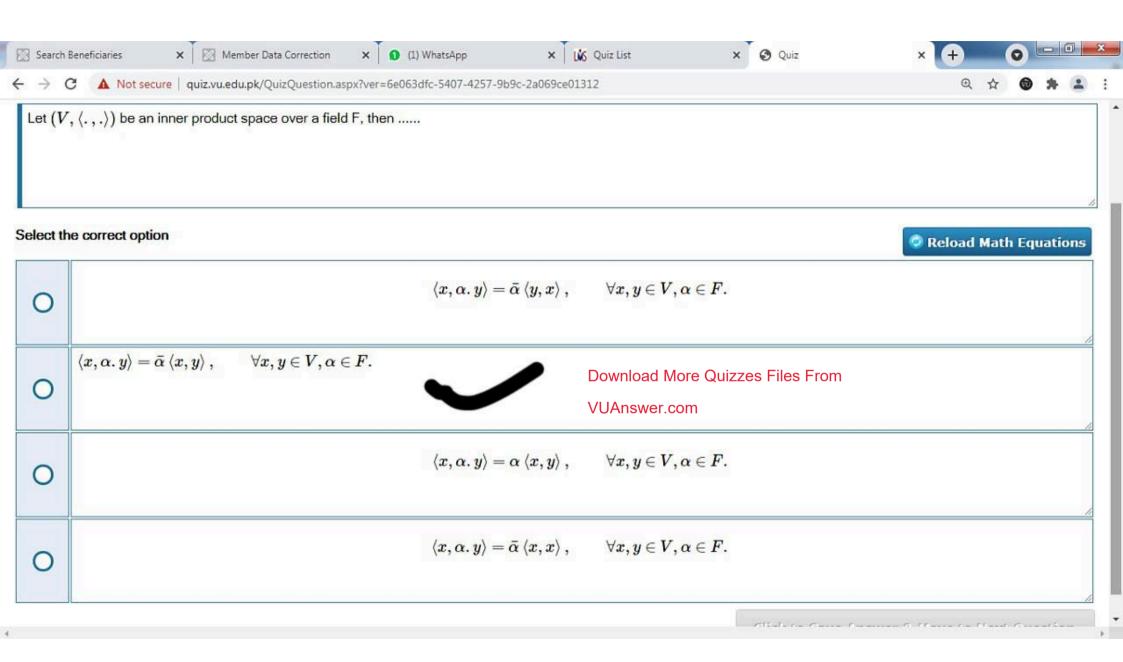


complete norm space

complete Inner product space



Incomplete Inner product space



Question # 3 of 10 (Start time: 01:34:22 PM, 27 August 2021)

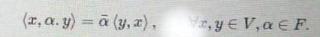
Let (1', (,,,)) be an inner product space over a field F, then

Select the correct option

| 0 | | | $\langle x, \alpha, y \rangle = \bar{\alpha} \langle x, x \rangle,$ | $\forall x, y \in V, \alpha \in F$ |
|---|--|--|---|------------------------------------|

$$\langle x, lpha, y
angle = lpha \, \langle x, y
angle \, , \quad \, orall x, y \in V, lpha \in F.$$

$$\langle x, \alpha, y \rangle = \tilde{\alpha} \langle x, y \rangle, \quad \forall x, y \in V, \alpha \in F.$$

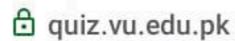














MTH641:Quiz-3

Question # 5 of 10 (Start time: 02:08:18 PM, 27 August 2021)

Let $(V,\langle .\,,.\rangle)$ be an inner product space over a field F, then

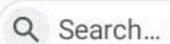
Select the correct option

$$\langle x, lpha, y
angle = ilde{lpha} \left\langle y, x
ight
angle, ~~ orall x, y \in V, lpha \in F.$$

$$\langle x,\alpha,y\rangle = \bar{\alpha}\,\langle x,y\rangle\,,\qquad \forall x,y\in V,\alpha\in F.$$
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$$\langle x, lpha, y
angle = lpha \left\langle x, y
ight
angle, \hspace{5mm} orall x, y \in V, lpha \in F.$$















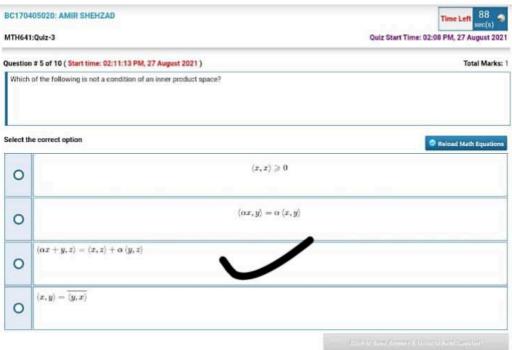












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Question # 4 of 10 (Start time: 01:35:18 PM, 27 August 2021)

In an inner product space X over the field of Complex numbers, for all $x,y \in X$ and $\alpha \in F$, then $(x,\alpha y) =$

Select the correct option

| 0 | | Download More Quizzes Files From VUAnswer.com |
|---|---|--|
| 0 | $\langle \alpha x, y \rangle$ | |
| 0 | $\alpha\langle x,y angle$ | |
| 0 | $\langle x, \overline{\alpha}y \rangle$ | |





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MC190404002: MUHAMMAD FAISAL

MTH641:Quiz-3

Question # 10 of 10 (Start time: 01:35:30 PM, 27 August 2021)

For an element x belongs to an inner product space , $\langle x,x
angle = \ldots$

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Select the correct option

less than 0 greater than 0



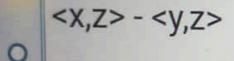
infinity

Question # 5 of 10 (Start time: 01:36:46 PM, 27 August 2021)

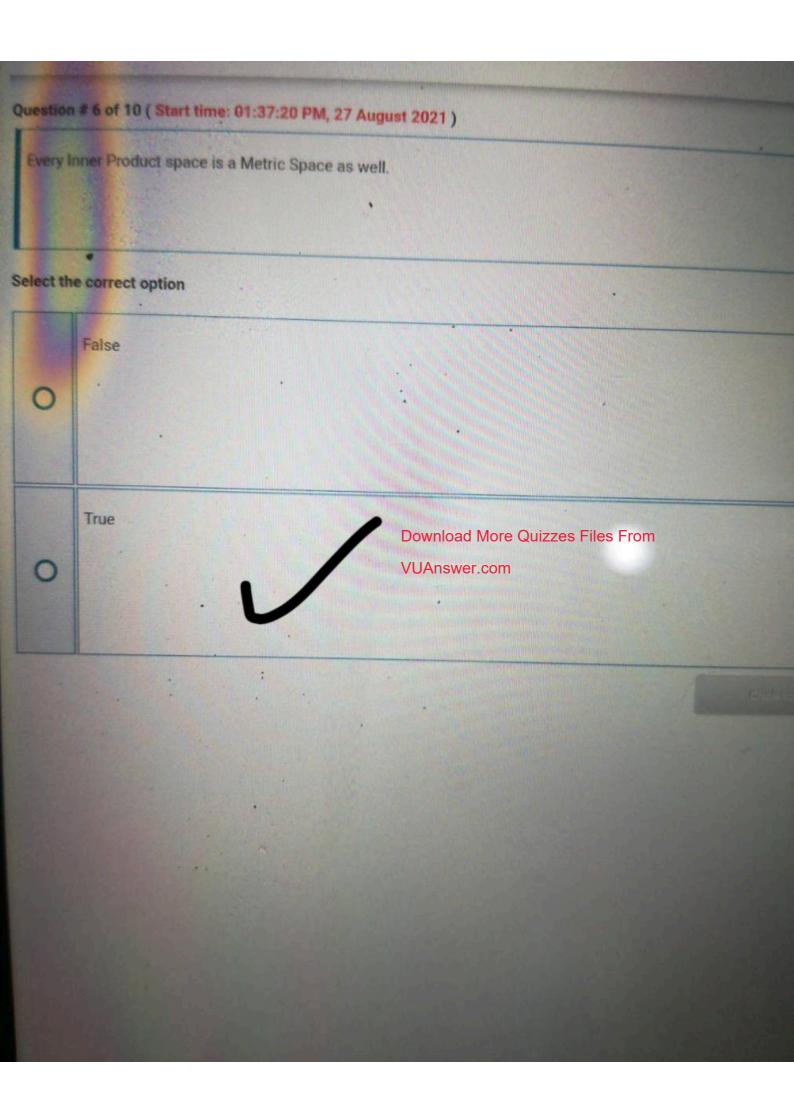
For an inner product space <x+y,z>=.....

Select the correct option

0









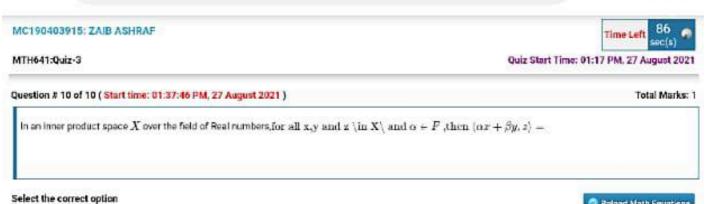


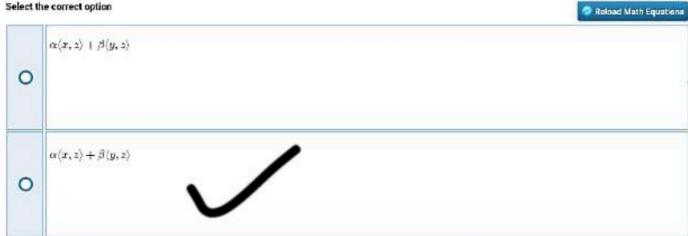


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Which of the following is not a condition of an inner product space?

Select the correct option

| (ax - | $+y,z\rangle$ | = (| $ x,z\rangle$ | +0 | (21 4) |
|-------|---------------|-----|---------------|----|--------|
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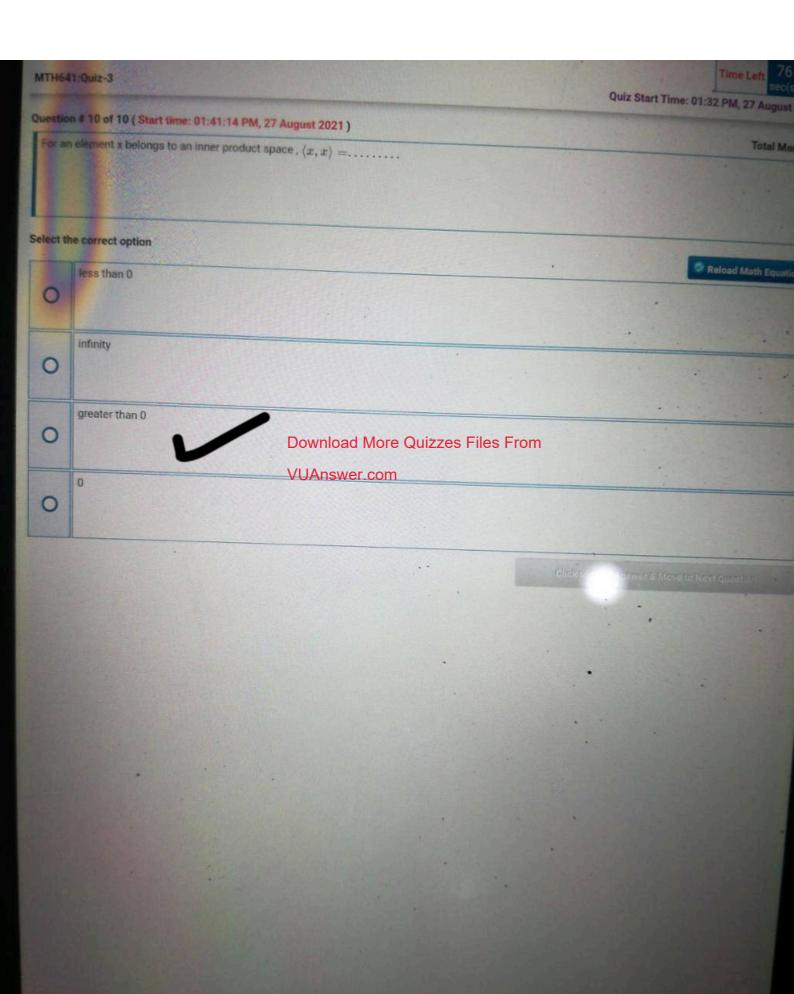
$$\langle x,x
angle \geqslant 0$$

$$\bigcirc \hspace{0.2cm} \langle x,y \rangle = \overline{\langle y,x \rangle}$$

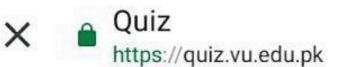
$$\langle lpha x,y
angle =lpha \langle x,y
angle$$

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| For all x, y belongs to an a | t 2021) | |
|------------------------------|-------------------------------------|----------------------------------|
| | $\langle \alpha x,y angle = \dots$ | |
| select the correct option | | |
| 0 | $lpha\left\langle x,-y ight angle$ | • |
| 0 | $lpha\left\langle -x,y ight angle$ | |
| 0 | $lpha\left\langle x,y ight angle$ | |
| 0 | $lpha\left\langle y,x ight angle$ | |
| | | Clickic Save Answer State to No. |
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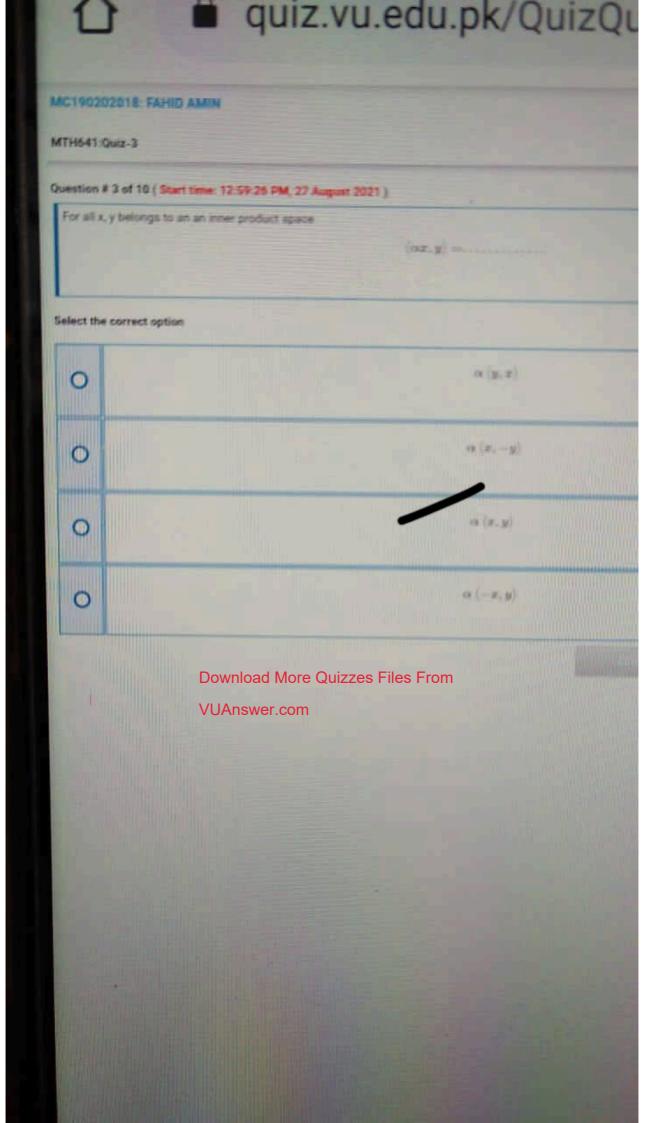
Question # 1 of 10 (Start time: 12:58:10 PM, 27 August 2021)

For an inner product space <x+y,z>=......

Select the correct option

0









quiz.vu.edu.pk/QuizQue:

MC190202018: FAHID AMIN

M174641:Quiz-3

Question # 4 of 10 (Start time: 0):00:03 PM, 27 August 2021)

Wash of the following is a condition of an inner product space?

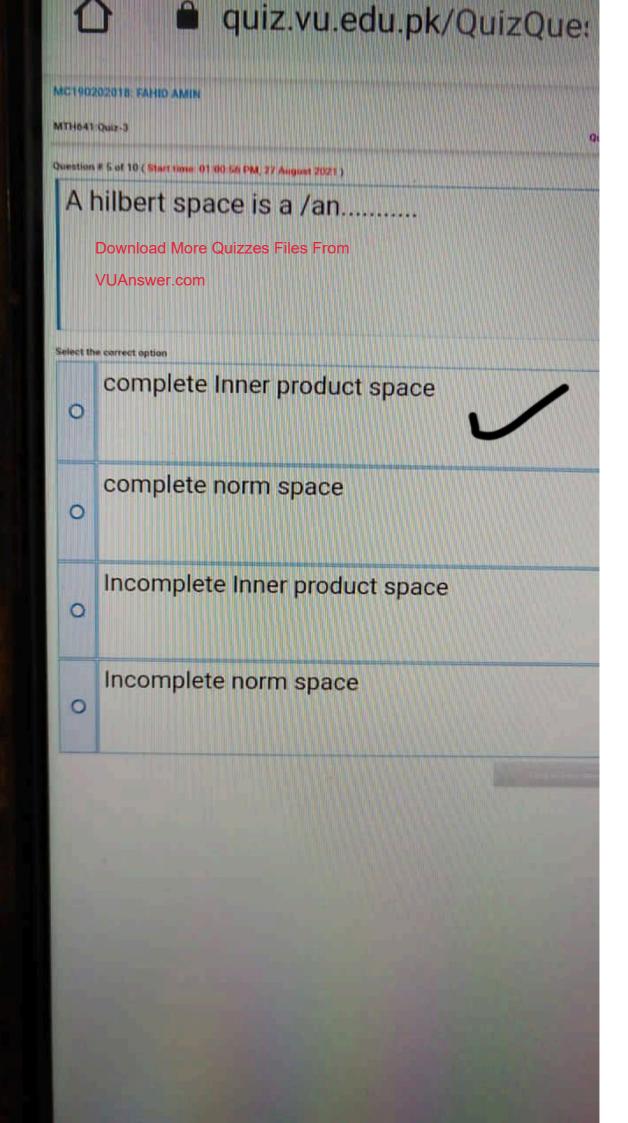
Select the correct option

$$(\alpha x + y, x) = (x, x) + \alpha (y, x)$$



$$\langle x,x\rangle \geq 0$$

$$(\alpha x, y) = (x, \alpha y)$$



| 1:0 | quiz.vu.edu.pk/QuizQu | ;ll □ |
|---------------------|---|---|
| MC19020 MTH641:Q | 2018: FAHID AMIN | Quiz Sta |
| Question # | a of 10 (Start time: 01:03:36 PM, 27 August 2021) ses product space X over the field of Complex numbers, for all $x,y \in \mathbb{R}$ correct option | $X\setminus \mathrm{and}\; lpha\in F, \mathrm{then}\; \langle x,lpha y angle =$ |
| 0 | $\alpha(x,y)$ | |
| 0 | Download More VUAnswer.com | Quizzes Files From |
| 0 | (ax, y) | |
| 0 | $(x, \overline{\alpha}y)$ | |
| | | |

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| For all x, y belongs to an an inner p | | |
|---------------------------------------|---------------------------------------|--|
| | $\langle \alpha x, y \rangle = \dots$ | |
| | | |
| Select the correct option | | |
| 0 | $lpha\left\langle -x,y ight angle$ | |
| 0 | $lpha\left\langle x,-y ight angle$ | |
| 0 | $lpha\left\langle x,y ight angle$ | |
| 0 | $lpha\left\langle y,x ight angle$ | |

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Question # 9 of 10 (Start time: 01:05:05 PM, 27 August 2021)

Every complete Inner product space is -----

Select the correct option

- Complex space
- Banach space
- Hilbert space



C Euclidean space











| Questio | n # 8 of 10 (Start time: 01:05:38 PM, 27 August 2021) | 10 |
|------------------|--|-----------|
| In an I and { | Inner Product space say X_n if the sequences $\{x_n\}$ $y_n\}$ are Cauchy, then (x_n,y_n) is ——— | |
| Select t | the correct option | Reload Ma |
| 0 | not necessarily a Cauchy Sequence in $oldsymbol{X}$ | |
| 0 | necessarily a Cauchy Sequence in F | |
| 0 | necessarily a Cauchy Sequence in X | |
| 0 | not necessarily a Cauchy Sequence in $oldsymbol{F}$ | |
| | | |

MC190202018: FAHID AMIN

MTH641:Quiz-3

Question # 10 of 10 (Start time: 01:06:08 PM, 27 August 2021)

In an Inner Product space say X, for any sequences $\{x_n\}$ and $\{y_n\}$, if $x_n\longrightarrow x$ and $y_n\longrightarrow y$, then it ——.

Select the correct option

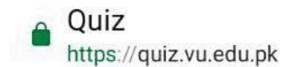
$$\bigcirc \qquad \Rightarrow \langle x_n,y_n\rangle \longrightarrow \langle x,y\rangle$$

$$\bigcirc \implies \langle x_n, y_n \rangle = \langle x, y \rangle$$

$$\bigcirc$$
 \Longrightarrow $\langle x_n,y_n\rangle \longrightarrow \langle x,y\rangle$

$$\bigcirc$$
 \Rightarrow $\langle x_n, y_n \rangle \neq \langle x, y \rangle$







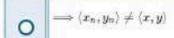




In an inner Product space say X, for any sequences $\{x_n\}$ and $\{y_n\}$, if $x_n\longrightarrow x$ and $y_n\longrightarrow y$, then it ——.

Select the correct option

8



0

$$\longrightarrow \langle x_n, y_n \rangle = \langle x, y \rangle$$

0

$$\Longrightarrow \langle x_n, y_n \rangle \longrightarrow \langle x, y \rangle$$



0

$$\Rightarrow \langle x_n, y_n \rangle \longrightarrow \langle x, y \rangle$$

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| MTH641:Quiz-3 | Quiz Start Time: 12 |
|---------------|---------------------|

| Question # 10 of 10 (Start time: 01.07.51 PM, 27 August 202 | n # 10 of 10 (Start time: 01:07:51 PM, 27 Augu | st 2021 |) |
|--|---|---------|---|
|--|---|---------|---|

In an inner product space X over the field of Complex numbers, for all $x,y \in X \setminus A$ and $\alpha \in F$, then $\langle x,\alpha y \rangle = A$

| Select ti | the correct option | |
|-----------|--|--|
| 0 | $\langle \alpha x, y \rangle$ | |
| 0 | $\langle x, \overline{\alpha}y angle$ | |
| 0 | $lpha\langle x,y angle$ | |
| 0 | $\overline{lpha}\langle x,y angle$ | |

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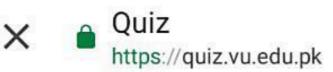






| Every l | Every Inner Product space is a Metric Space as well. | | | | |
|-----------|--|--|--|--|--|
| Select th | ne correct option | | | | |
| 0 | False | | | | |
| 0 | True | | | | |









Question # 6 of 10 (Start time: 01:03:18 PM, 27 August 2021)

Which of the following is a condition of an inner product space?

Select the correct option

Reloa

| | $\langle \alpha x + y, z \rangle = \langle x, z \rangle + \alpha \langle y, z \rangle$ |
|---|---|
| 0 | |

0





$$\langle x, y \rangle = \langle x, y \rangle$$

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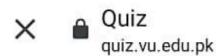
$$\langle \alpha x,y\rangle = \langle x,\alpha y\rangle$$

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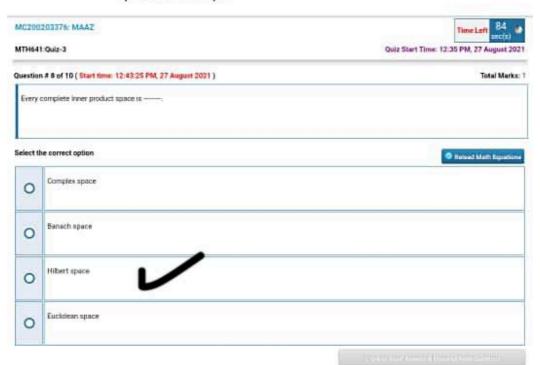
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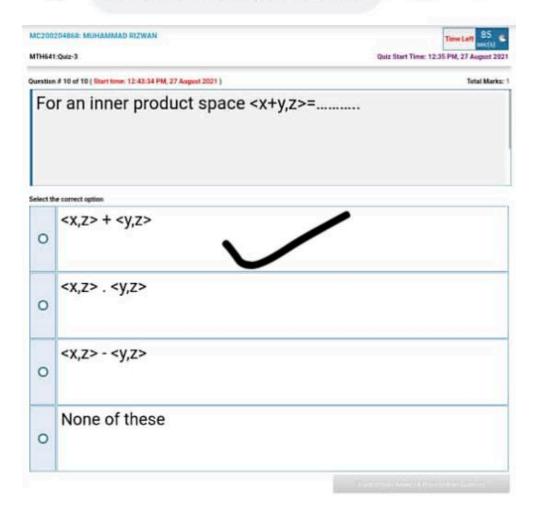






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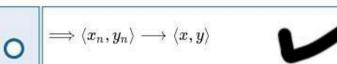
Reload Math Equations

In an Inner Product space say $X, \,$ for any sequences $\{x_n\}$ and $\{y_n\}$, if $x_n \longrightarrow x$ and $y_n \longrightarrow y$, then it ——.

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Select the correct option

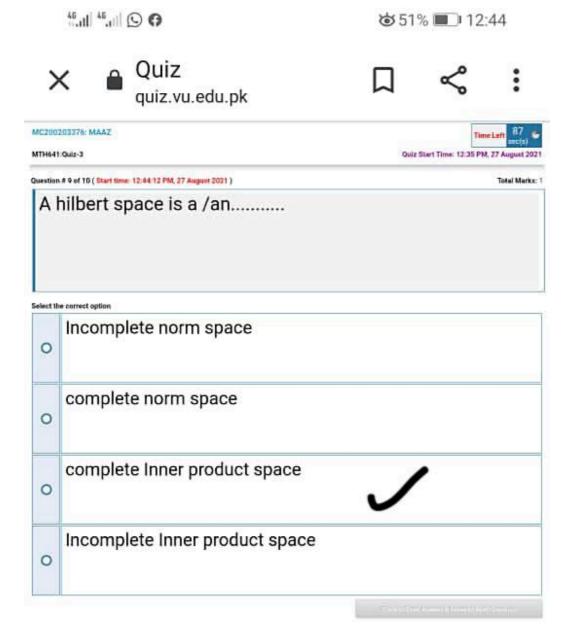


$$\bigcirc \implies \langle x_n, y_n \rangle = \langle x, y \rangle$$

$$\bigcirc$$
 \Longrightarrow $\langle x_n,y_n
angle
eq \langle x,y
angle$

$$lacksquare$$
 $\Rightarrow \langle x_n, y_n \rangle \longrightarrow \langle x, y
angle$

Click to Save Answer & Move to Next Question



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| In an Inner Product space say $X,$ if the sequences | $\{x_n\}$ |
|---|-----------|
| and $\{y_n\}$ are Cauchy, then $\langle x_n,y_n angle$ is | (7) KS71 |

Select the correct option



- necessarily a Cauchy Sequence in X
- lacksquare not necessarily a Cauchy Sequence in F
- necessarily a Cauchy Sequence in F

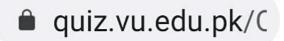


lacksquare not necessarily a Cauchy Sequence in X



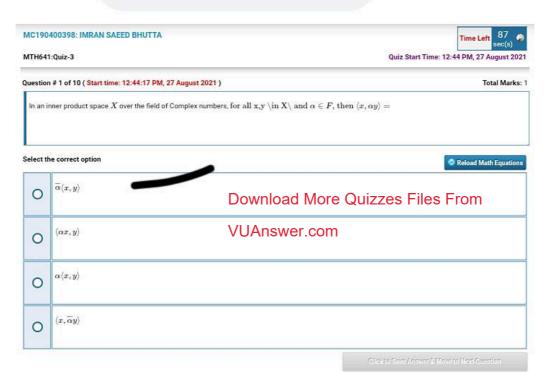
























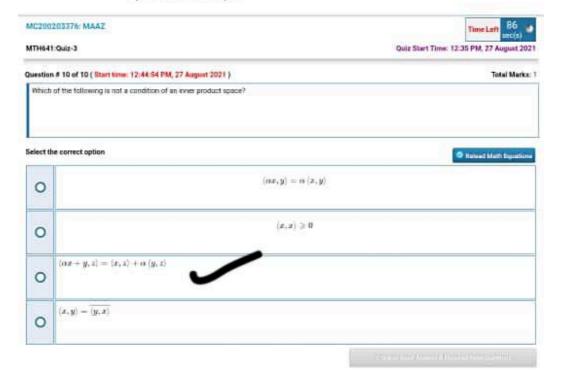


Quiz quiz.vu.edu.pk









Question # 6 of 10 (Start time: 12:44:52 PM, 27 August 2021) Total Marks: 1 In an inner product space X over the field of Real numbers, for all x,y $\in X$ and $\alpha \in F$, then $\langle x, \alpha y \rangle = 1$ Select the correct option Reload Math Equations $lpha\langle x,y angle$ Not sure $\langle \alpha x, y \rangle$

Click to Save Answer & Move to Next Question

For an inner product space <x+y,z>=......

Select the correct option

0

0

0

None of these

<x,z> + <y,z>



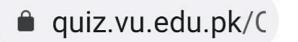
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<x,z> . <y,z>











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| MC190 | 0400398: IMRAN SAEED BHUTTA | Time Left 88 sec(s) |
|---------------|--|--|
| MTH641:Quiz-3 | | Quiz Start Time: 12:44 PM, 27 August 2021 |
| Questio | n # 2 of 10 (Start time: 12:45:45 PM, 27 August 2021) | Total Marks: 1 |
| | Inner Product space say X_n if the sequences $\{x_n\}$ $y_n\}$ are Cauchy, then (x_n,y_n) is ——. | |
| Select t | the correct option | Reload Math Equations |
| 0 | not necessarily a Cauchy Sequence in ${\cal F}$ | |
| 0 | necessarily a Cauchy Sequence in ${\cal X}$ | |
| 0 | necessarily a Cauchy Sequence in ${\cal F}$ | |
| 0 | not necessarily a Cauchy Sequence in $oldsymbol{X}$ | |
| | | Ginesia Seva Answer 2 May 16 Dest Guestion |









In an inner product space X over the field of Real numbers,for all x,y and $z \in F$, then $\langle \alpha x + \beta y, z \rangle = 0$

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Select the correct option





$$igg|lpha\langle x,z
angle + \overline{eta}\langle y,z
angle$$



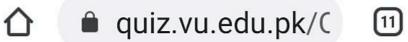
$$\alpha\langle x,z\rangle+\beta\langle y,z\rangle$$













| MC190 | 400398: IMRAN SAEED BHUTTA | Time |
|-----------------------------------|--|--------|
| MTH641:Quiz-3 Quiz Start Time: 12 | | |
| Question | n # 3 of 10 (Start time: 12:46:53 PM, 27 August 2021) | |
| For all | x, y belongs to an an inner product space $\langle lpha x,y angle = \ldots $ | |
| Select th | ne correct option | Reload |
| 0 | $lpha\left\langle x,y ight angle$ | |
| 0 | $lpha \left\langle x,-y ight angle$ | |
| 0 | $lpha\left\langle -x,y ight angle$ | |
| 0 | $lpha\left\langle y,x ight angle$ | |
| | | |







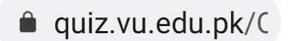


Question # 9 of 10 (Start time: 12:47:30 PM, 27 August 2021) Total Marks: 1 Every Inner Product space is a Metric Space as well. Select the correct option Reload Math Equations True Download More Quizzes Files From VUAnswer.com False Click to Save Answer & Move to Next Question



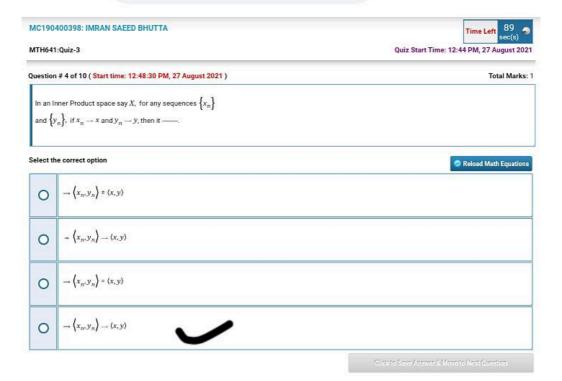








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Question # 10 of 10 (Start time: 12:48:51 PM, 27 August 2021) Total Marks: 1 For all x, y belongs to an an inner product space $\langle \alpha x, y \rangle = \dots \dots$ Select the correct option Reload Math Equations $\alpha \left< -x,y \right>$ 0 $lpha\left\langle x,-y ight angle$ 0 $\alpha \left\langle y,x ight angle$ $\alpha \langle x, y \rangle$