

Course > Module > Graded > Graded
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Graded Quiz # 8
Graded Quiz # 8
8/10 points (graded)
Please write below your BracU ID and Sectoion number. After
submission these may shows WRONG answers. Please
IGNORE these messeges. Your score will be based on the
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 $\frac{1}{2}n(n-1)$ Can't load web font TeX/Math/Italic

$\bigcirc \frac{1}{2}r$	$n\left(n+1 ight)$
$\bigcirc \frac{1}{2}r$).
$\bigcirc n$	+ 1
~	
	Which of the following statement(s) is(are) NOT true the Gaussian elemination method?
◯ de	$\operatorname{t}{(A)}$ does not change.
○ The	e lower triangular and upper triangular form gives the same solution.
◯ de	$\mathrm{t}L=\det U$ where L and U are the lower and upper triangular forms of A
● The	e row operation changes all matrix elements of the matrix $oldsymbol{A}$
quar	Suppose you have a linear system where A is $10 imes10$ e matrix. How many row operations are need to obtain a traingular matrix?
9.	
<u> </u>	
() It c	anot be determined. Need more information.



Q#5: A 8×8 square matrix, A, is changed to an upper triangular form by the row operation in the Gaussian elimination method. After the completion of the $3^{
m rd}$ row operation, how many matrix elements of $oldsymbol{A}$ has been chnaged to zero by the row operations?

\bigcirc 22.			
<u></u>			

<u>1</u> 2		

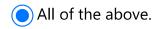




Q#6: In the video lecture 15, Part-II, we showed an example. What we can say about the solution of the example?

Back substitution	n method is	used to	solve the	problem.
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- There was a typo in the typed lecture slide which was corrected during the video lecture. That typo did not occur in the example part of the lecture.
- The problem could also been solved by transforming the matrix $oldsymbol{A}$ into lower triangular form.



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Q#7: In the LU-decomposition method, the matrix A is transformed into



singular form.

None of them above.



>>Q#8: The lower trangular matrix L is defined as

$$L \equiv \left(F^{(1)}
ight)^{-1} \left(F^{(2)}
ight)^{-1} \cdots \left(F^{(n-1)}
ight)^{-1}\,,$$

where the matrix $F^{(k)}$ are constructed out of the row multipliers and 1's as shown in the lecture. If n=15 how many matrix elements of $F^{(5)}$ will be non-zero?

15.

20.

 $\bigcirc{25}$.

16.



You have used 1 of 1 attempt Submit

Can't load web font TeX/Math/Italic atrix of a linear system is given by

\{\rm Aug\} (A) \equiv \left(\begin\{\rm Atrix\} 1 & 2 & 1 \\ 1 & -2 & 2 \\ 2 & 12 & -2 \end\{\rm Atrix\} $\left| \left| \left| \right| \right| \right| \le 1.$

Q#9: [1 Mark] Find the matrix $F^{(1)}$. Show calculations.

Q#10: [1 Mark] Find the matrix $F^{(2)}$. Show calculations.

GRADED QUIZ # 8 SUBMISSION

Status

You have completed this assignment. Your final grade will be available when the assessments of your response are complete.

Your Response due Sep 9, 2021 21:00 +06 (in 0 minutes) ✓ COMPLETE

Staff Grade NOT AVAILABLE

Waiting for a Staff Grade

Check back later to see if a course staff member has assessed your response. You will receive your grade after the assessment is complete.

▼Your Grade: Waiting for Assessments

You have completed your steps in the assignment, but some assessments still need to be done on your response. When the assessments of your response are complete, you will see feedback from everyone who assessed your response, and you will receive your final grade.

C

≮ Previous



Next	>
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