Flag question

The value for X_2 if we apply secant method at the function

$$f(x) = 2 - e^x$$

using $x_0 = 0$ and $x_1 = 1$

- a. 0.3324
- b. 0.987
- c. 0.7558
- d. 0.5819

Previous page | Next page

Answer saved

Marked out of 1

Flag question

Bisection method can be applied for the function

$$f(x) = x^3 + x - 3$$

at [2, 4]

Select one:

- True
- False

Next page

Previous activity

◀ Homework #2

The value for X_1 if we apply newton's method at the function $f(x) = 2 - e^x$ using $x_0 = 0$

- a. 0.75
- b. 0.5
- c. 0.2
- d. 1

Clear my choice

Previous page Next page

Previous activity

Find the value for X_2 in the following function using **false-position method** assuming $x_0 = 0$ and $x_1 = 0.11$

$$f(x) = x^3 - 0.165x^2 + 3.993 \times 10^{-4}$$

a. 0.123

b. 0.221

c. 0.0660

d. 0.311

Clear my choice

Not yet answered

Marked out of 1

Flag question

The value for X_1 if we apply newton's method at the function $f(x) = 2 - e^x$ using $x_0 = 0$

- a. 0.75
- b. 0.5
- c. 0.2
- d. 1

Previous page

Next page

علِّم هذا السؤال

Find the value for X_2 in the following function using **false-position method** assuming $x_0 = 0$ and $x_1 = 0.11$

$$f(x) = x^3 - 0.165x^2 + 3.993 \times 10^{-4}$$

.a 0.123

.b 0.0660

.c 0.311

.d 0.221

أخلِ اختياري

الصفحة السابقة

الصفحة التالية

Previous activity
Homework #2 ▶

الانتقال إلى...

Next activity
Announcements

تم حفظ الإجابة

الدرجة من 1

علِّم هذا السؤال

The value for X_2 if we apply secant method at the function

$$f(x) = 2 - e^x$$

using $x_0 = 0$ and $x_1 = 1$

0.3324	.a ○
0.5819	.b ◉
0.7558	.c ○
0.987	.d ○

أخلِ اختياري

الصفحة التالية

الصفحة السابقة

Previous activity

Homework #2 ▶

الانتقال إلى...

Bisection method can be applied for the function $f(x) = x^3 + x - 3$ at [2, 4]

Select one:

- True
- False

Round the number to the nearest thousand x= 99.9995

Select one:

- a. 99.999

elearn.iu.edu.jo/mod/quiz/attempt.php?attempt=54760&cmid=77255&page=3#question-1019

YouTube

البوابة التعليمية الإلكترونية لجامعة الإسراء ISR

Find the value for X_2 in the following function using **false-position method** assuming $x_0 = 0$ and $x_1 = 0.11$

$$f(x) = x^3 - 0.165x^2 + 3.993 \times 10^{-4}$$

a. 0.221

b. 0.311

c. 0.123

d. 0.0660

given the following function f(x) on the interval [2,5] the first iteration using the bisection method f(m) is

$5x^2 - 5x + 4$

estion 18

yet
swered

rked out of

Flag
estion

Using Lagrange's interpolation formula to find y(10) from the following table:

x	5	6	9	11
y	12	13	14	16

x_0= 5

x_1= 6

x_2= 9

x_3= 11

y_0= 12

y_1= 13

y_2= 14

y_3= 16

$y(10)$ = 14.6663

Question 1

Not yet answered

Marked out of 2

Flag question

to truncate the number x= 34.3376 to three decimal places

Select one:

- a. 34.338
- b. 43.337
- c. 34.337
- d. 34.336

Clear my choice

Question **4**

Not yet answered

Marked out of 3

Flag question

Given the following table compute P(3) using Newton Formula

(-2,15), (-1,-4),(1,0),(3,20)

- a. 24
- b. 21
- c. 17
- d. 20

Clear my choice

Question 5

Answer saved

Marked out of 3

Remove flag

given the following function f(x) on the interval [2,5] the first iteration using the bisection method f(m) is

$5x^2 - 5x + 4$

- [x] a. -0.687
- [ ] b. -2.25
- [ ] c. 0.687
- [ ] d. 2.25

Clear my choice

Question 7

Not yet answered

Marked out of 2

Flag question

$x^2 = 16$

given the following equation

- a. No Solution
- b. (+4,-2)
- c. (+4,-4)
- d. (+2,-4)

Clear my choice

Question 8

Not yet answered

Marked out of 2

Flag question

A vector is a row matrix contains any number of rows but at least one column

Select one:

- True
- False

Question 9

Not yet answered

Marked out of 2

Flag question

Given a matrix A= $\begin{bmatrix} 1 & -1 \\ 2 & -2 \end{bmatrix}$ a11+a22= -1

Select one:

- True
- False

Question 11

Not yet answered

Marked out of 2

Flag question

A non Zero Matrix is a matrix all entries are zeros

Select one:

- True
- False

Question 13

Not yet answered

Marked out of 3

Flag question

The function $f(x) = e^x$ using Taylor 5th degree polynomial at x0=0

a. $f(x) = 1 + \frac{x^2}{2} - \frac{x^3}{6} + \frac{x^4}{24} + \frac{x^5}{120}$

b. $f(x) = \frac{x^2}{2} - \frac{x^3}{6} + \frac{x^4}{24} + \frac{x^5}{120}$

c. $f(x) = 1 + x + \frac{x^2}{2} + \frac{x^3}{6} + \frac{x^4}{24} + \frac{x^5}{120}$

d. $f(x) = x + x^2 + x^3 + x^4 + x^5$

Clear my choice

Question 14

Not yet answered

Marked out of 3

Flag question

if B is $(n \times n)$ Matrix then $\det(B) = \det(B^T)$

Select one:

- True
- False

Question 15

Not yet answered

Marked out of 2

Flag question

A developer claims that a program costs 98 US Dollar, and the True cost is 100 US Dollar. One of the following is True

Select one:

- a. The claimed cost was too low by 1%
- b. The claimed cost was too low by 2%
- c. The claim cost was above 1%
- d. The claim cost was above 2%

Clear my choice

Question 16

Not yet answered

Marked out of 2

Flag question

A rectangular matrix is a matrix which number of rows equal to number of columns

Select one:

- True
- False

Question 18

Not yet answered

Marked out of 2

Flag question

If C,D are two (nxn) matrices then determinant (CD)=determinant (C)*determinant(D)

Select one:

- True
- False

Question 19

Not yet answered

Marked out of 3

Flag question

The root (if exists) for the following function $f(x)=e^{2x}$ on the interval [-2,0] start with x1=-2

Select one:

- a. There is no root in this interval
- b. -1.758
- c. 2.242
- d. -2.242

Clear my choice

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elearn.iu.edu.jo/mod/quiz/attempt.php?attempt=854318&cmid=85

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Question 18
Answer saved
Marked out of 1
Flag question

Assume that: $\begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \end{bmatrix} \times \begin{bmatrix} b_{11} & b_{12} \\ b_{21} & b_{22} \\ b_{31} & b_{32} \end{bmatrix} = \begin{bmatrix} c_{11} & c_{12} \\ c_{21} & c_{22} \end{bmatrix}$

The value of c_{21} is equal to

Select one:

- a. $(a_{21} \times b_{11}) + (a_{22} \times b_{21}) + (a_{23} \times b_{31})$
- b. $(a_{11} \times b_{11}) + (a_{12} \times b_{21}) + (a_{13} \times a_{31})$
- c. $(a_{11} \times b_{12}) + (a_{12} \times b_{22}) + (a_{13} \times a_{32})$
- d. $(a_{21} \times b_{12}) + (a_{22} \times b_{22}) + (a_{23} \times b_{32})$

Clear my choice

Absolute error increases with increasing in difference between true value and approximated value

DELL

Question 12
Answer saved
rked out of

If $A = [1 \quad 4 \quad 2]$, $B = \begin{bmatrix} 3 \\ 6 \\ 5 \end{bmatrix}$, then $AB = 37$

Select one:
- True
- False

To solve a set of linear equations using matlab, you can write the equations in the form

A.X = b

>>A= [a11, a12, ...aIn;
a22 ..... a2n;
.....;
.....ann]
b2 .....bn]

Flag question

this matrix is a diagonal matrix

Select one:

- True
- False

Question 12

Answer saved

Marked out of 1

Remove flag

Diagonal matrix is a square Matrix is where all elements are zero's except those on the first raw

Select one:

- True
- False

Question 13

Not yet answered

Marked out of 4

Flag

Given the following set of discrete data in Table below

x	0.2	0.3	0.4	0.5	0.(
$f(x)$	1.0832	1.1972	1.3771	1.6487	2.05

$f'(0.4)$ using 3-point endpoint formula

Finish atte

Time left 0

ENG

Question 2
Answer saved
Marked out of 2
Flag question

True
False

$$\begin{bmatrix} 1 & 0 & 1 \\ 0 & 2 & 0 \\ 0 & 0 & 3 \end{bmatrix}$$

this matrix is a diagonal matrix

Select one:
True
False

I

Question 3
Not yet answered
Marked out of

Let $A = \begin{bmatrix} a & -7 \\ 2 & -b \end{bmatrix}$. $|A| = \ldots$

Select one:
a. $14 - ab$

Question 10
Not yet answered
Marked out of 8
Flag question

Clear my choice

Using Newton's Forward formula, find f(0.1604) from the following table

x	0.160	0.161	0.162
f(x)	0.1593182066	0.1603053541	0.1612923412

f(0.1604) =

f(0.160) =

x_0 =

h =

0.001

0.159713084

0.1600

0.1612923412

Next page

To solve a set of linear equations using matlab, you can write the equations in the form

A.X = b

>>A= [a11, a12, ...,a1n;

a21, a22,....., a2n;

.....;

an1,.....ann]

>>b=[b1;b2;.....;bn]

>>inv(A)*b

Select one:

- (●) True
- ( ) False

Previous page

Finish attempt ...

○ d. (0,0)

Question 4

Not yet answered

Marked out of 1

Flag question

The determinant of the following matrix is:

$$A = \begin{bmatrix} 1 & 2 & -1 \\ 0 & 2 & 2 \\ -1 & 0 & 1 \end{bmatrix}$$

Select one:

◉ a. 6

○ b. 4

○ c. 3

○ d. -1

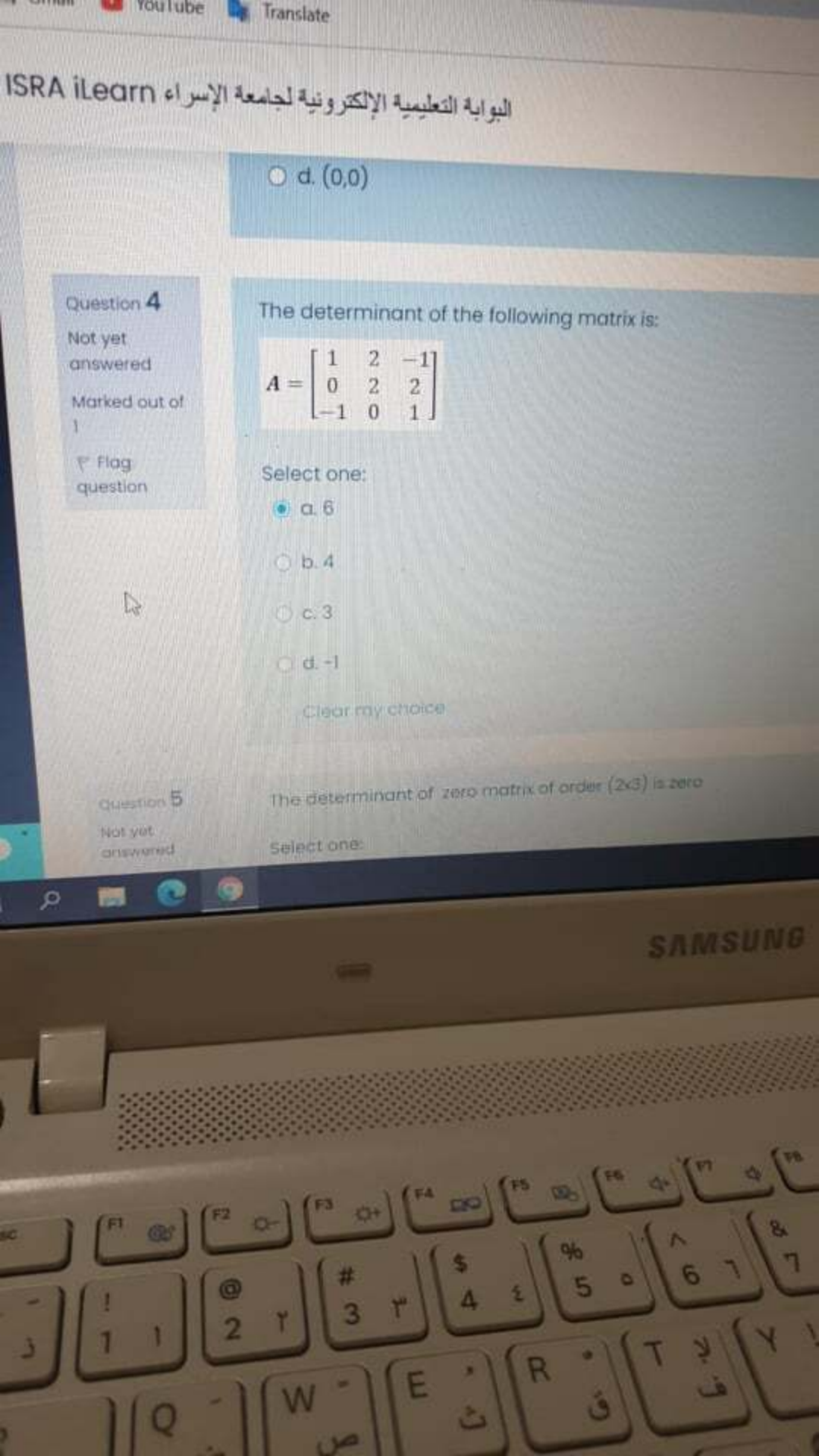
Clear my choice

Question 5

Not yet answered

The determinant of zero matrix of order (2x3) is zero

Select one:



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Question 14
Answer saved
Marked out of 1
Remove flag

Round the number to the nearest thousand x= 99.9995

Select one:
a. 99.999
b. 10.000
c. 100.000
d. 99.9996

Clear my choice

15

Approximate the integrals $\int_0^{\pi} \sin(x)\,dx$ using the simple trapezium rule

a. 0.8790
b. 0.4578

Assume that: $\begin{bmatrix} a_{11} & a_{12} & a_{13} \\ a_{21} & a_{22} & a_{23} \end{bmatrix} \times \begin{bmatrix} b \\ b \\ b \end{bmatrix}$

The value of c_{21} is equal to:

Select one:

- a. $(a_{11} \times b_{11}) + (a_{12} \times b_{21}) + (a_{13}$
- b. $(a_{11} \times b_{12}) + (a_{12} \times b_{22}) + (a_{13}$
- c. $(a_{21} \times b_{11}) + (a_{22} \times b_{21}) + (a_{23}$
- d. $(a_{21} \times b_{12}) + (a_{22} \times b_{22}) + (a_{23}$

Clear my choice

Flag question

is column matrix contains m column

Select one:

True

False

Question 17

Answer saved

Marked out of 2

Remove flag

The determinant of zero matrix of order (2x3) is zero

Select one:

True

False

Question 18

Not yet answered

Marked out of 9

Flag

Using Lagrange's interpolation formula to find y(10) from the following table:

x	5	6	9	11
y	12	13	14	16

هاني الثلجي

1 2 4 5 7 8 10 11 13 14 16 17 19 20 22

Finish attemp

Time left 0:39

ENG

Solve $2x^3 - 2.5x - 5 = 0$ for the root in [1,2] by Newton Raphson method using $x_0 = 2$

The value for X_1 after the first iteration 1.6601046324

The value for X_2 after the second iteration 1.7209302187

The value for X_3 after the third iteration 1.6625729799

on 15

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out of

page

The solution of system

$2x - y = 8$

$x - 2y = 4$

$(x, y) =$

Select one:

- a. (4,0)
- b. (0,4)
- c. (0,0)
- d. (2,2)

Solve the following system of equations:

$$6x - 2y + 2z = 4$$
$$4x + 2y = 2$$
$$x + 2y - z = 3$$

Select one:

- a. $x = 2,\ y = -3,\ and\ z = -7$
- b. $x = 1,\ y = 4,\ and\ z = 11$
- c. $x = 3,\ y = -5,\ and\ z = -10$
- d. $x = 4,\ y = 4,\ and\ z = -6$

Clear my choice

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question

$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 2 & 0 \\ 0 & 0 & 3 \end{bmatrix}$$

this matrix is a diagonal matrix

Select one:

- True
- False

ect one:

- True
- False

Question 20

Not yet answered

Marked out of

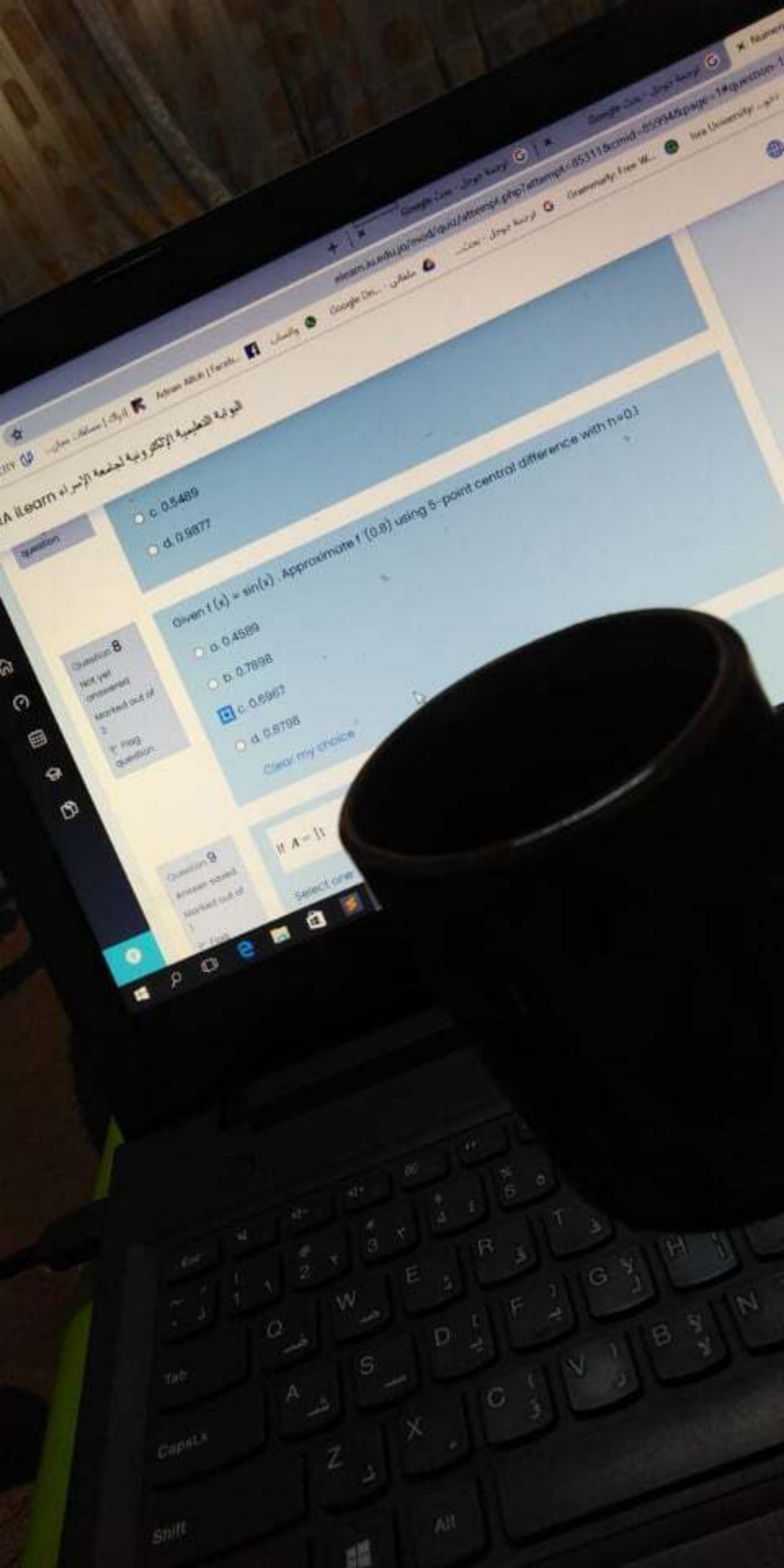
Flag estion

Solve the following system of equations:

$$\begin{aligned} 6x - 2y + 2z &= 4 \\ 4x + 2y &= 2 \\ x + 2y - z &= 3 \end{aligned}$$

Select one:

- a. $x = 4,\ y = 4,\ \text{and}\ z = -6$
- b. $x = 2,\ y = -3,\ \text{and}\ z = -7$
- c. $x = 1,\ y = 4,\ \text{and}\ z = 11$
- d. $x = 3,\ y = -5,\ \text{and}\ z = -10$


c. 0.5489
d. 0.9877
Given f (x) = sin(x) Approximate f '(0.8) using 5- point central difference with h=0.1
a. 0.4589
b. 0.7898
c. 0.6967
d. 0.8798
Clear my choice
Question 8
Not yet answered
Marked out of 3
Flag question
Question 9
Answer saved
Marked out of 1
If A = [1
Select one:

Clear my choice

12

If we want to find a solution for X in the following set of equations using

$3X + 4y + 5z = 9$

$2x + 7y + z = 8$

$X + 6y + 4z = 12$

then x =

Select one:

a.

$$\frac{\begin{vmatrix} 9 & 1 & 3 \\ 8 & 5 & 2 \\ 12 & 4 & 1 \end{vmatrix}}{\begin{vmatrix} 3 & 4 & 5 \\ 2 & 7 & 1 \end{vmatrix}}$$

False

Question 13

Not yet answered

Marked out of 1

Flag question

Solve the following system of equations:

$$6x - 2y + 2z = 4$$
$$4x + 2y = 2$$
$$x + 2y - z = 3$$

Select one:

a. $x = 2,\ y = -3,\ and\ z = -7$

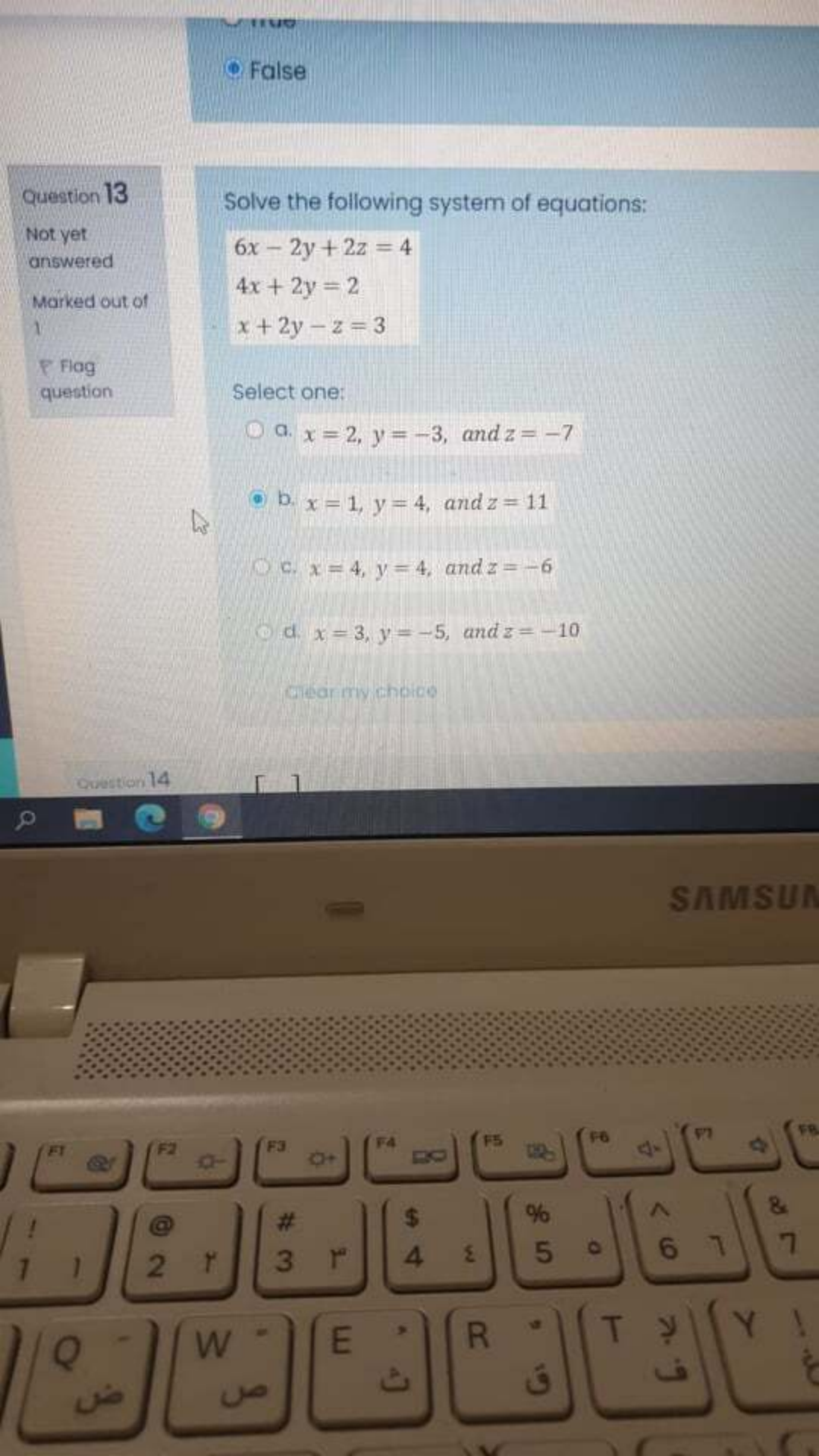
b. $x = 1,\ y = 4,\ and\ z = 11$

c. $x = 4,\ y = 4,\ and\ z = -6$

d. $x = 3,\ y = -5,\ and\ z = -10$

Clear my choice

Question 14



○ d. (0,4)

Clear my choice

Question 8

Not yet answered

Marked out of 4

Flag question

Given the following set of discrete data in Table below

x	0.2	0.3	0.4	0.5	0.6	0.7
$f(x)$	1.0832	1.1972	1.3771	1.6487	2.0544	2.6644

f '(0.4) using 3-point endpoint formula

f '(0.4) using 5-point midpoint formula

2.1285 | 2.2007

Question 9

Answer saved

If $A = [1 \quad 4 \quad 2]$, $B = \begin{bmatrix} 3 \\ 6 \end{bmatrix}$, then $AB = 37$

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Flag
estion

Find a root of an equation $f(x)=2x^3-2x-5$ using False Position method (regula falsi method) at [0,2]

The value for X_2 using $X_0=1$, $X_1=2$ after the first iteration

The value for X_3 after the second iteration

The value for X_4 after the third iteration

1.58924 | 1.55359 | 1.41667

uestion 6

Determine the root of the given equation $x^2-3=0$ for $x \in [1,2]$ using Bisection method

Clear my choice

When simplified with Boolean Algebra $(x + y)(x + z)$ simplifies to

Select one:

- a. $x + x(y + z)$
- b. $x + yz$
- c. $x(1 + yz)$
- d. x

Clear my choice

ous page

ious activity

Jump to...

Question 17

Answer saved

Marked out of 2

Flag question

$$\begin{bmatrix} 1 & 0 & 4 \\ 0 & 2 & 0 \\ 0 & 0 & 3 \end{bmatrix}$$

this matrix is a diagonal matrix

Select one:

- True
- False

rical Analysis

The equation f(x) is given as $x^2-4=0$. Considering the initial approximation at x=4 then the value of x_1 is given as _____

- a. 2
- b. 1.5
- c. 2.5
- d. 1

The dimensions of the following matrix is:

Question 2

Answer saved

Marked out of 3

Flag question

The determinant of the following matrix is:

$$\boldsymbol{A} = \begin{bmatrix} 1 & 2 & -1 \\ 0 & 2 & 2 \\ -1 & 0 & 1 \end{bmatrix}$$

Select one:

- a. -1
- b. 4
- c. 3
- d. 6

Clear my choice

Question 1

Not yet answered

Marked out of 3

Flag question

Find the root of the function $f(x) = x^3 - x - 1$ using secant method with

$X_0 = 0$ and $x_1 = 1$

- a. $x_2 = 2.86667$
- b. $x_2 = 1.16667$
- c. $x_2 = 2.36667$
- d. $x_2 = 1.96667$

Clear my choice

Flag question

The bisection method of finding roots of non linear equations falls under the category of an -------- method

Select one:

- a. Graphical
- b. open
- c. random
- d. bracketing

Question 2

Not yet answered

Marked out of 2

Flag question

Question 15

Not yet answered

Marked out of 2

Flag question

$$\begin{bmatrix} a_{11} \\ a_{21} \\ \vdots \\ a_{m1} \end{bmatrix}$$

is column matrix contains m column

Select one:

- True
- False

Question 16

Answer saved

Marked out of 2

Flag question

Question 6

Answer saved

Marked out of 2

Flag question

Given the function $f(x) = x^3 - 5$ on the interval [1, 4] Number of iterations needed to find the root using bisection method with error=.0001 is approximated to

Select one:

- a. 22 times
- b. 3 times
- c. 15 times
- d. 12 times

Clear my choice

cal Analysis

given the following non linear equation

f(z)= -z + cos(z) on [0.5, pi/4]

and using secant method of solving, given the two starting point

z0=0.5 z1=0.7854

f(z1) =

Answer: -0.0783

The dimensions of the following matrix is:

$$\begin{bmatrix} 2 & 6 & 1 \\ 4 & 7 & 8 \\ 1 & 0 & 6 \\ 7 & 4 & 7 \end{bmatrix}$$

Post

Not yet answered

Marked out of 1

Flag question

given the following non linear equation

f(z)= -z + cos(z) on [0.5, pi/4]

and using secant method of solving, given the two starting points

z0=0.5 z1=0.7854

f(z1) =

Answer:

My T

Previous page

Finish attempt ...

Question 9

Answer saved

Marked out of 2

Flag question

The following matrix is ..... .

$$\begin{bmatrix} 1 & 0 & 0 & 0 \\ 3 & 1 & 0 & 0 \\ 6 & 5 & 7 & 0 \\ 2 & 8 & 1 & 3 \end{bmatrix}$$

Select one:

- a. Diagonal matrix
- b. Scalar matrix
- c. Lower triangular matrix
- d. Row matrix

Clear my choice

Question 16

Answer saved

Marked out of 2

Flag question

for a real continuous function $f(x)$, $f(a)*f(b)<0$ then the range of $[a, b]$ for $f(x)=0$ there is---------

Select one:

- a. at least one root
- b. no root
- c. one root
- d. three roots

Clear my choice

Question 19

Answer saved

Marked out of 2

Flag question

The bisection method of finding roots of non linear equations falls under the category of an -------- method

Select one:

- a. random
- b. Graphical
- c. open
- d. bracketing

Clear my choice

Question 7

Answer saved

Marked out of 1

Flag question

The roots of the equation $x^2 - 5x + 6 = 0$

Select one:

- a. (-2,3)
- b. (2,-3)
- c. (-2,-3)
- d. (2,3)

Clear my choice

given the following non linear equation

f(Z)= - Z + cos(Z) on [0.5, pi/4]

and using secant method of solving, given the two starting points

Z0=0.5 Z1=0.7854

Z2=

Answer: 0.7364

page

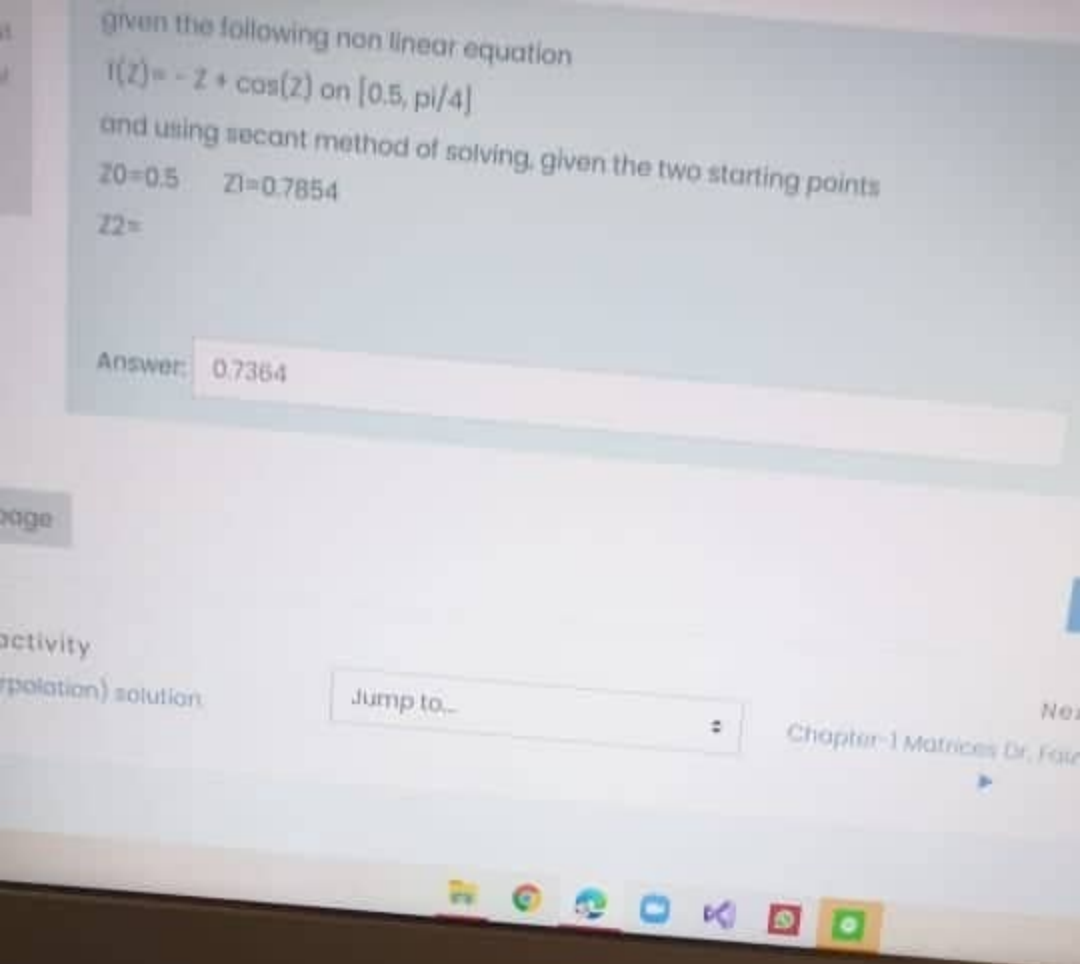
activity

rpolation) solution

Jump to...

Next

Chapter-1 Matrices Dr. Fai



6

Given the function $f(x)=x^3-5$ on the interval $[1, 4]$ Number of iterations needed to find the root using bisection method with error=.0001 is approximated to

Select one:

- a. 15 times
- b. 22 times
- c. 12 times
- d. 3 times

Question 11

Answer saved

Marked out of 1

Flag question

The dimensions of the following matrix is:

$$\begin{bmatrix} 2 & 6 & 1 \\ 4 & 7 & 8 \\ 1 & 0 & 6 \\ 7 & 4 & 2 \\ 6 & 1 & 9 \end{bmatrix}$$

Select one:

- a. 3×5
- b. 5×3
- c. 5×15
- d. 15×3

Clear my choice

Question 10

Answer saved

Marked out of 2

Flag question

$$\begin{bmatrix} a_{11} \\ a_{21} \\ \vdots \\ a_{m1} \end{bmatrix}$$

is column matrix contains m column

Select one:

- True
- False

Question 13

Answer saved

Marked out of 1

Flag question

The equation $f(x)$ is given as $x^2-4=0$. Considering the initial approximation at $x=4$ then the value of x_1 is given as

_____

- a. 2
- b. 2.5
- c. 1
- d. 1.5

Clear my choice

Question 12

Answer saved

Marked out of 1

Flag question

Bisection method can be applied for the function

$f(x) = x^3 + x - 3$ at [1, 4]

Select one:

- (•) True
- ( ) False

Select one:

- True
- False

15

The equation f(x) is given as $x^2-4=0$. Considering the initial approximation at of x_1 is given as _____

- a. 2.5
- b. 2
- c. 1.5
- d. 1

Clear my choice

16

Given the function $f(x)=x^3-5$ on the interval [1, 4] Number of iterations needed using bisection method with error=.0001 is approximated to

Select one:

- a. 15 times
- b. 12 times

Question 10

Not yet answered

Marked out of 1

Flag question

The Newton Raphson method is also called as

_____

- a. Diameter method
- b. Chord method
- c. Tangent method
- d. Secant

Question 11

Answer saved

Marked out of 2

Flag question

Question 18

Answer saved

Marked out of 2

Flag question

$x^2 = 16$

given the following equation

- a. No Solution
- b. (+4,-2)
- c. (+2,-4)
- d. (+4,-4)

Clear my choice

Question 15

Answer saved

Marked out of 2

Flag question

$\begin{bmatrix} 1 & 4 & 4 \end{bmatrix}$

a row matrix with three columns

Select one:

- True
- False

Question 8

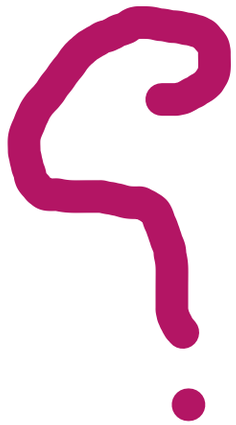
Answer saved

Marked out of 3

Flag question

given the following function f(x) on the interval [2,5] the first iteration using the bisection method f(m) is

$5x^2 - 5x + 4$



- a. -0.687
- b. Bisection can not be applied

Question 4

Answer saved

Marked out of 2

Flag question

The root (if exists) for the following function $f(x) = e^{2x}$ on the interval [-2,0] start with x1=-2

Select one:

- a. There is no root in this interval
- b. -1.758
- c. 2.242
- d. -2.242

Clear my choice