



Online Exams

Sri Lanka Institute of Information Technology

$$f(x) = \frac{x^2 + 7}{3x - 1}$$

Find $f'(-1)$.

Hint : Differentiate the function and Substitute -1.

Answer:



Question 8

Not yet answered

Marked out of
3.00

Flag question

N Refers to all the positive integers. (Called as Natural Numbers)

$$f: N \rightarrow N \quad f(n) = n^3 - 3$$

Is f a One to one function?

Is f an onto function?

Does f has an inverse function?

[Next page](#)



Number of
Questions

Find the following definite integral.

$$\int_1^2 \left(\frac{1}{x^2} - 3 \right) dx.$$

(Keep your answer with a one decimal place)

Answer:



Question 4

Not yet answered

Marked out of 1.00

Flag question

Simplify the following boolean expression.

$$\overline{A} B \overline{C} + A \overline{B} \overline{C} + \overline{A} \overline{B} \overline{C} + \overline{A} \overline{B} C$$

Select one:

☐ $\overline{A} \overline{B} \overline{C}$

☐ $\overline{B} \overline{C}$

☐ $(\overline{A} + \overline{B}) \overline{C}$

☐ $(A + \overline{B}) \overline{C}$

☐ None of the above

Quiz navigation

1	2	3	4
8	9	10	11
15	16	17	18
22	23	24	25
29	30	31	32

Finish attempt

Time left 1:40:01

Next page



2

answered

out of

question

$$f(x) = (x^2 - 5)(x^3 - 2x + 3)$$

Find $f'(-2)$.

Hint : Differentiate the function and Substitute -2.

(No spaces should be in the answer)

Answer:

Next page



$$f(x) = \left(\frac{1}{x} - 3\right) \frac{x^2 + 3}{2x - 1}$$

Find $f'(-1)$.

Hint : Differentiate the function and Substitute -1.

(Write your answer as a fraction. Eg: 23/2)

No spaces should be in the answer)



Question 1

Not yet answered

Marked out of 100

Flag question

Consider the following function.

$$f(x) = x^4 - x^2 + 20$$

1. Find $f'(6)$:

2. Find the definite integral of $f(x)$ from -1 to 2 :



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Question 1

Not yet answered

Marked out of 2.00

Flag question

Consider the following function.

$$f(x) = x^4 - x^2 + 20$$

1. Find $f'(6)$:
2. Find the definite integral of $f(x)$ from -1 to 2 :

Next page

Quiz navigation

1	2	3	4	5	6
9	10	11	12	13	14
17	18	19	20	21	22
25	26	27	28	29	30
31					

Finish attempt

Time left 1:59:22

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Consider the following function.

$$g: R \rightarrow R \quad g(x) = \frac{(9 + x)}{3}$$

Find $g^{-1}(2)$

Hint : Find the inverse of g and substitute 2.

Answer:

Question 19

Not yet answered

Marked out of

1.00

Flag question

Simplify the following boolean expression:

$$ABC + \bar{A}B\bar{C} + A\bar{B}\bar{C} + A\bar{B}C$$

Select one:

☐ $AC + \bar{B}\bar{C}$

☐ $A\bar{C} + \bar{B}C$

☐ $AC + B\bar{C}$

☐ $A\bar{C} + B\bar{C}$

☐ None of the above

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Simplify the following boolean expression.

$$AB + ABC + A \overline{B} \overline{C} + A \overline{C}$$

Select one:

☐ $A(\overline{B} + C)$

☐ A

☐ $C + \overline{B}$

☐ $A(B + \overline{C})$

☐ None of the above

N Refers to all the positive integers. (Called as Natural Numbers)

$$f: N \rightarrow N \quad f(n) = x^5 - 2x + 1$$

Is f a One to one function?

Choose... ▼

Is f an onto function?

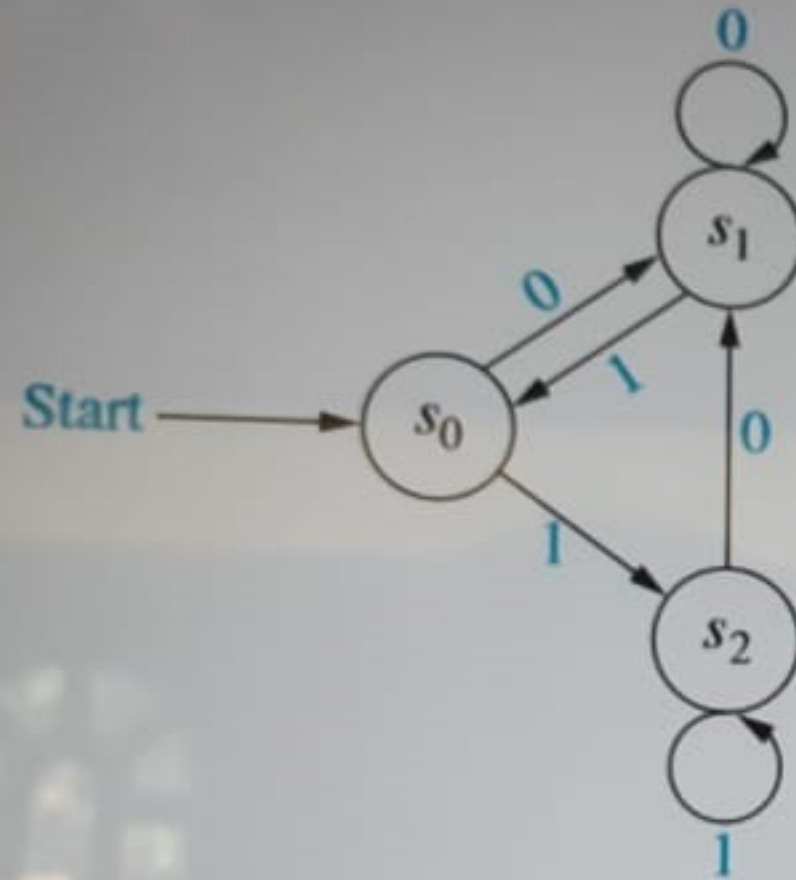
Choose... ▼

Does f has an inverse function?

Choose... ▼

Question 13
Not yet answered
Marked out of 4.00
Flag question

Consider the following finite state Machine A.



What is the initial State?

To what state does A go if 100101001 input to A in sequence starting from the initial state?

Find $N(s_1, 0)$

Find $N(s_2, 0)$

Choose...

Choose...

s0

s1

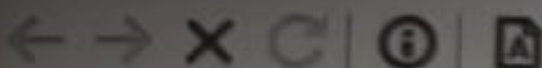
s2

Quiz navigation

1	2	3	4	5	6	7	8
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17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32

Finish attempt ...

Time left 0:45:43



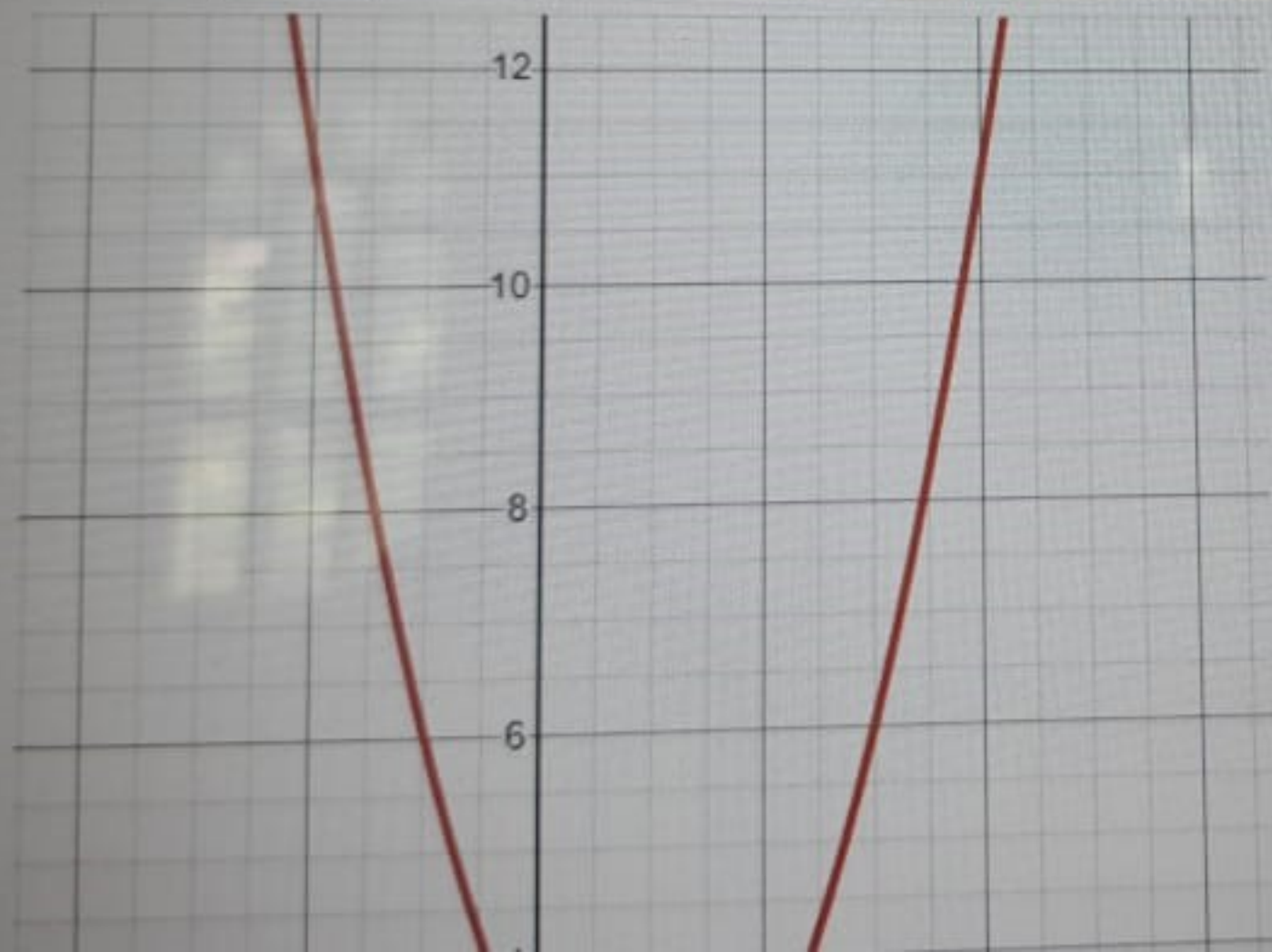
Question 11

Not yet answered

Marked out of
1.00

Flag question

Graph of $y = x^2 - 2x + 3$ is given below. Find the area under the curve from -2 to 4. (Round your answer to 2 decimal places)



Consider the following function.

$$g: R \rightarrow R \quad g(x) = \frac{(5x - 5)}{4}$$

Find $g^{-1}(-5)$

Hint : Find the inverse of g and substitute -5 .

Answer:

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N Refers to all the positive integers. (Called as Natural Numbers)

$$f: N \rightarrow N \quad f(n) = n^3 + 3$$

Is f a One to one function?

Choose... ▼

Is f an onto function?

Choose... ▼

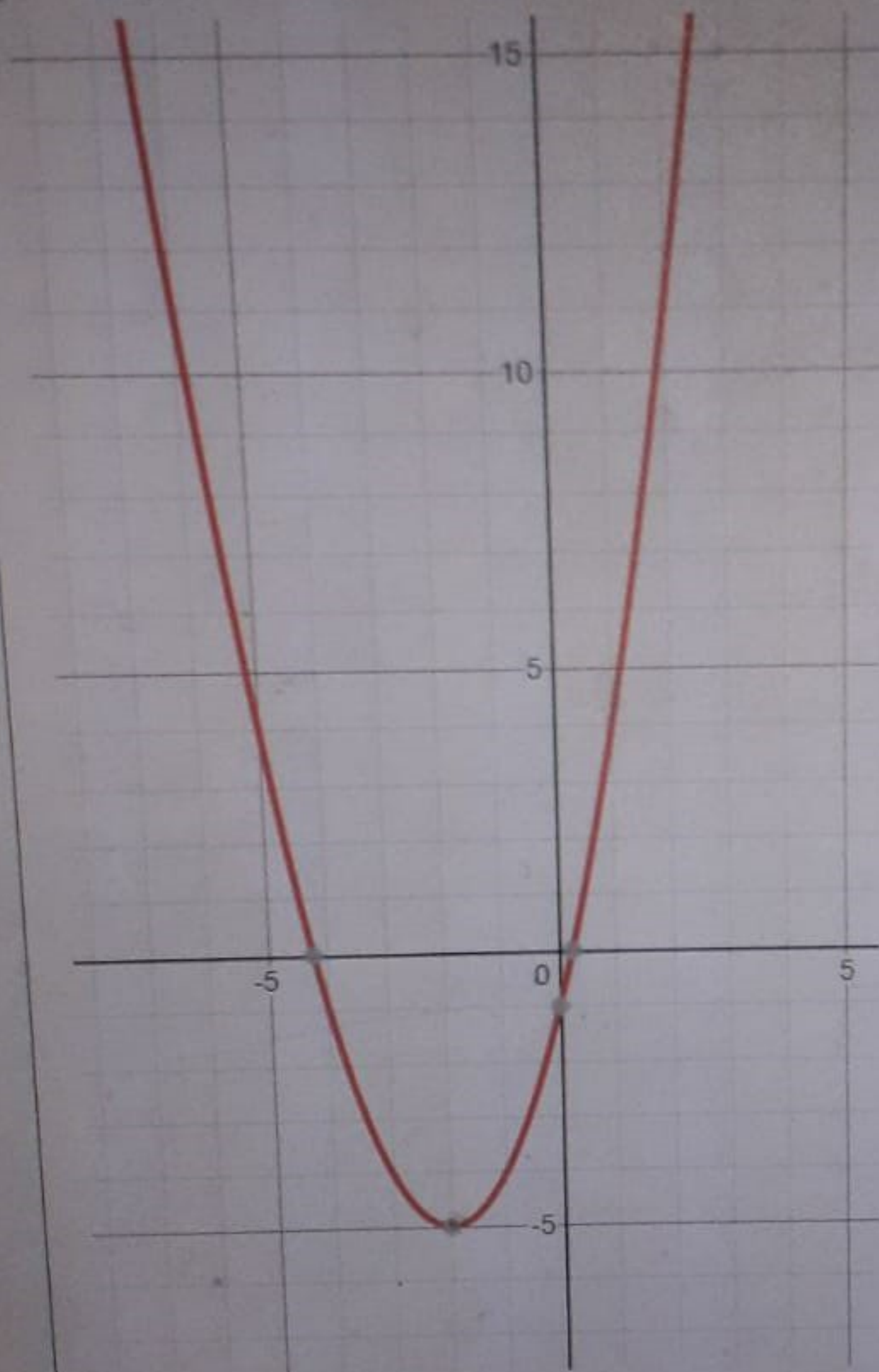
Does f has an inverse function?

Choose... ▼

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Graph of $y = x^2 + 4x - 1$ is given below. Find the area under the curve from -5 to 1 .
(Round your answer to 2 decimal places)



Answer:

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$$f(x) = \frac{x^2 + 1}{5x - 3}$$

Find $f'(-1)$.

Hint : Differentiate the function and Substitute -1

(Write your answer as a fraction. Eg: 23/2)

No spaces should be in the answer)

Answer:



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n 8

answered

out of

question

$$A = 111011 + 10001010$$

Find the 2's Complement of A.

(No spaces should be there in your answer)

Answer: 10101011

I



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Question 7

Not yet answered

Marked out of 1.00

Flag question

N Refers to all the positive integers. (Called as Natural Numbers)

$$f: N \rightarrow N \quad f(n) = x^3 - 2x + 1$$

Is f a One to one function?

No ▼

Is f an onto function?

No ▼

Does f has an inverse function?

No ▼



Consider the following function.

$$g: R \rightarrow R \quad g(x) = \frac{(-2x + 1)}{3}$$

Find $g^{-1}(-3)$

Hint : Find the inverse of g and substitute -3 .

Answer:



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N Refers to all the positive integers. (Called as Natural Numbers)

$$f: N \rightarrow N \quad f(n) = x^4 - 2x + 1$$

Is f a One to one function?

Choose... ▼

Is f an onto function?

Choose... ▼

Does f has an inverse function?

Choose... ▼

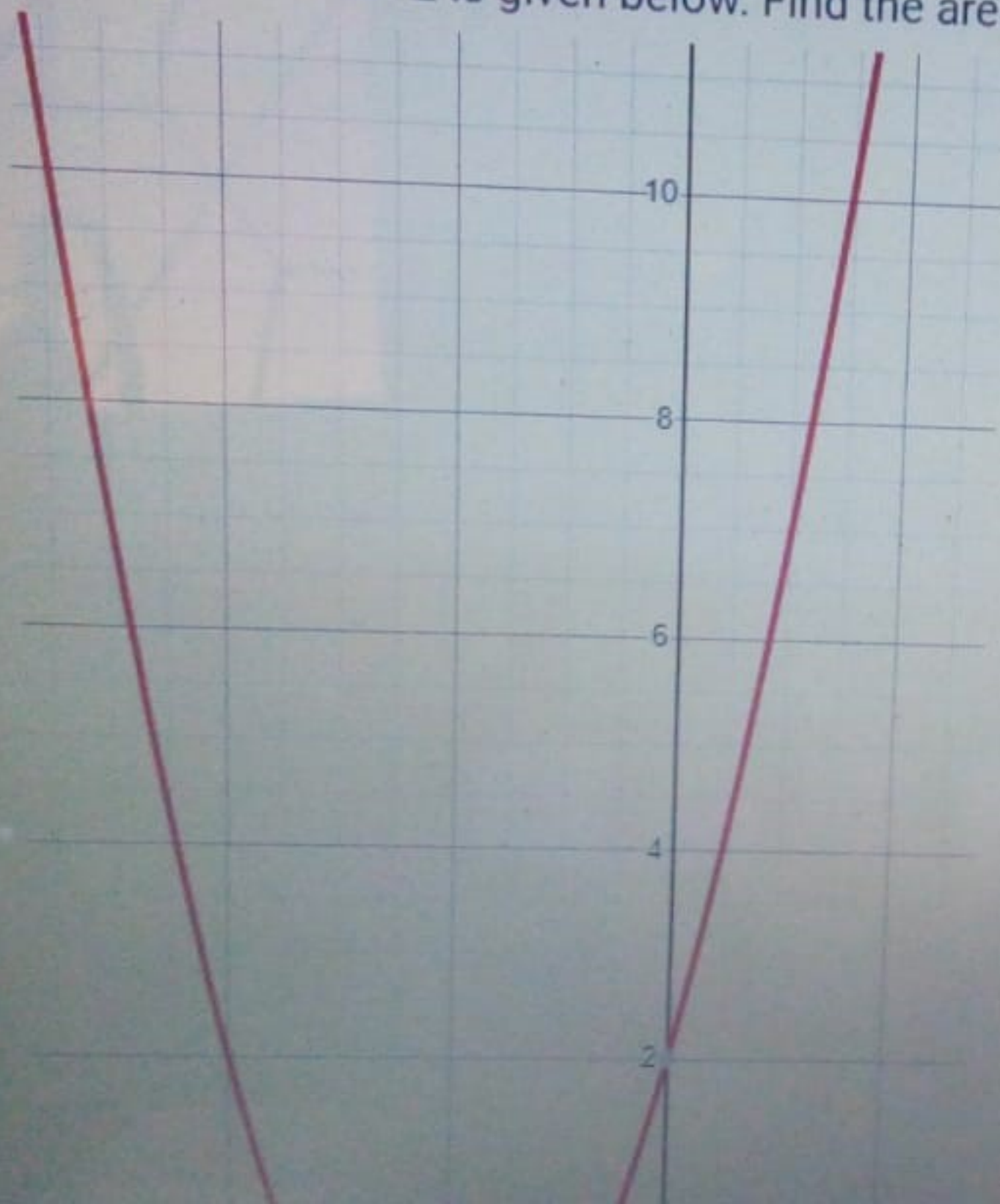
Question 3

Not yet answered

Marked out of
1.00

Flag question

Graph of $y = x^2 + 4x + 2$ is given below. Find the area under the curve from -4 to 2.



≡ Qu

1

2

8

9

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23

29

30

Finish attempt

Time left 1:38



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N Refers to all the positive integers. (Called as Natural Numbers)

$$f: N \rightarrow N \quad f(n) = n + 3$$

Is f a One to one function?

Yes •

Is f an onto function?

Yes •

Does f has an inverse function?

Yes •



If $|A| = 64$ then find the cofactor matrix of A.

$$A = \begin{bmatrix} 0 & 2 & 5 \\ 4 & x & 3 \\ 2 & 1 & -4 \end{bmatrix}$$

C_{11}

C_{12}

C_{13}

C_{21}

C_{22}

C_{23}

C_{31}

C_{32}



Question 4

Not answered

0 out of 10

Tag question

How many different license plates can be made if each plate contains a sequence of three uppercase English letters followed by three digits (and no sequences of letters are prohibited, even if they are obscene)?

Answer:

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