Find f (g(x)) for the following 2 functions.

$f(x) = 2x - 1$

$g(x) = x^2 + 3$

Select one:

- $f(g(x)) = 2x^2 - 3$
- $f(g(x)) = 2x^2 + 5$
- $f(g(x)) = 2x^2 + 3$
- $f(g(x)) = 2(x+1)$
- None of the above

Question 11

Not yet answered

Marked out of 1.00

Flag question

Find f (g(x)) for the following 2 functions.

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

$g(x) = 2x - 1$

Select one:

- (●) $f(g(x)) = 4(x^2 - x + 1)$
- ( ) $f(g(x)) = (x^2 - x + 1)$
- ( ) $f(g(x)) = 2(x^2 + 3) - 1$
- ( ) $f(g(x)) = 2(x-1) + 3$
- ( ) None of the above

Previous page

uestion 4
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Flag question

Find the value of

$9 \times 3^{x} = 1/27$

Select one:

- 0
- -0.5
- -3/2
- -5
- None of the above

Previous page

If the matrix $A = \begin{pmatrix} 5 & -1 \\ 5 & x \end{pmatrix}$ and $A^{-1} = \begin{pmatrix} 3/20 & 1/20 \\ -1/4 & 1/4 \end{pmatrix}$ the value of $x$ is,

Select one:

- a. 4
- b. 3
- c. 1
- d. -2
- e. 2

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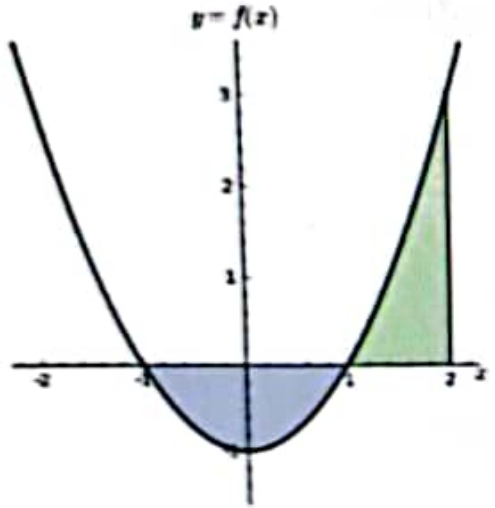
-1 out of

g question

Find the area of the region between the function $f(x) = x^2 - 1$ and the x-axis from x=-1 to x=2 as shown below




Select one:

- 4/3
- 0
- 8/3
- 2/3
- None of the others

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question

Consider the following data set.

32, 26, -10, 46, 34, 72, 21, -21, 33

Find the median and Q3 (third quartile) for this data set.

Select one:

- Median: 23 and Q3: 5.5
- Median: 40 and Q3: 32
- Median: 23 and Q3: 40
- Median: 32 and Q3: 40

A square and rectangle have the same area.

The length of the rectangle is five inches more than twice the length of the side of the square.

The width of the rectangle is 6 inches less than the side of the square.

Find the length of the side of the square

Select one:

- 10
- 15
- 20
- 30
- None of the above

n 6
t answered
d out of
lag question

What is the corresponding degree for (6π)/5 rad

Select one:

- 216
- 90
- 120
- 245
- 128

Previous page

Question 18

Not yet answered

Marked out of 1.00

Flag question

Find $x$ when $\log_2(x^2 + 2x + 1) = 2$

Select one:

- a. 1 and -1
- b. 3 and 2
- c. 1 and 1
- d. -3 and 1
- e. 2 and 1

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n 9

t answered

d out of

ag question

Suppose the matrix $A = \begin{pmatrix} 1 & 2 & 3 \\ 0 & -1 & 2 \\ 2 & 2 & y \end{pmatrix}$ and the determinant is 7. What is the value of $y$?

Select one:

- a. -3
- b. 5
- c. 6
- d. 3
- e. 1

Question **4**

Not yet answered

Marked out of 1.00

Flag question

Which is not parallel to $3y=2x+4$

Select one:

- $3y+2x+6=0$
- $6y=4x+4$
- $12y-8x+8=0$
- $(3/2)y-x-9=0$
- None of the above

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g question

Find f (g(x)) for the following 2 functions.

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

$g(x) = 2x - 1$

Select one:

- $f(g(x)) = 4(x^2 - x + 1)$
- $f(g(x)) = (x^2 - x + 1)$
- $f(g(x)) = 2(x^2 + 3) - 1$
- $f(g(x)) = 2(x-1) + 3$
- None of the above

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estion

In a competition, a school awarded medals in different categories. 36 medals in dance, 12 medals in dramatics and 18 medals in music. If these medals went to a total of 45 persons and only 4 persons got medals in all the three categories, how many received medals in exactly two of these categories?

Select one:

- 10
- 3
- 5
- 6
- None of the above

ous page

Next page

n 14

t answered

d out of

ag question

Find the inverse of the function f(x) = 3x - 8

Select one:

- $f^{-1}(x) = (x + 8) / 3$
- $f^{-1}(x) = (x - 8) / 3$
- $f^{-1}(x) = (8 - x) / 3$
- $f^{-1}(x) = (3x + 8)$
- None of the above

Previous page

Question 14

Not yet answered

Marked out of 1.00

Flag question

Differentiate the following function with respect to x

$$(x^2 - 4x + 3)(3x^3 - 3x^2 - 1)$$

Select one:

- $15x^4 - 60x^3 + 63x^2 - 20x + 4$
- $15x^4 - 36x^3 + 45x^2 - 12x - 6$
- $15x^4 - 60x^3 + 63x^2 - 12x - 12$
- None of the others
- $15x^4 - 40x^3 + 51x^2 - 18x - 6$

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Next page

Question 11

Not yet answered

Marked out of 1.00

Flag question

Find f (g(x)) for the following 2 functions.

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

$g(x) = 2x - 1$

Select one:

- $f(g(x)) = 4(x^2 - x + 1)$
- $f(g(x)) = (x^2 - x + 1)$
- $f(g(x)) = 2(x^2 + 3) - 1$
- $f(g(x)) = 2(x-1) + 3$
- None of the above

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Question **10**

Not yet answered

Marked out of 1.00

Flag question

If the matrix $A = \begin{pmatrix} 5 & -1 \\ 5 & x \end{pmatrix}$ and $A^{-1} = \begin{pmatrix} 3/20 & 1/20 \\ -1/4 & 1/4 \end{pmatrix}$ the value of $x$ is,

Select one:

- a. 4
- b. 2
- c. 1
- d. 3
- e. -2

Previous page

Question 3

Not yet answered

Marked out of 1.00

Flag question

Differentiate the following function with respect to x

$$\sqrt[3]{x^2-1}$$

Select one:

- $\frac{2x}{3(x^2-1)^{\frac{2}{3}}}$
- $\frac{2x}{3(x^2-1)^{\frac{2}{3}}}$
- $-\frac{4x}{3(x^2-1)^{\frac{4}{3}}}$
- None of the others
- $\frac{4x}{3(x^2-1)^{\frac{2}{3}}}$

Previous page

Question 15

Not yet answered

Marked out of 1.00

Flag question

Find f (g(x)) for the following 2 functions.

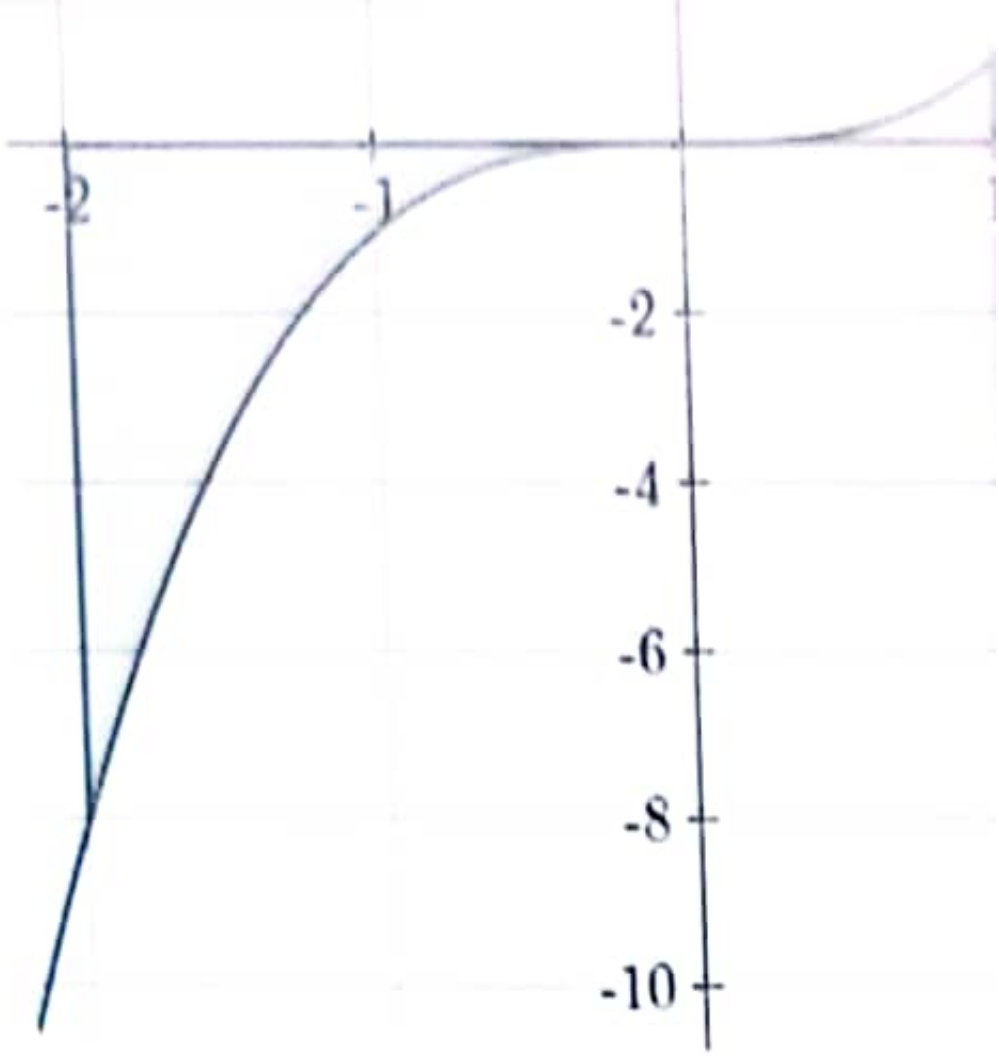
$f(x) = 2x - 1$

$g(x) = x^2 + 3$

Select one:

- $f(g(x)) = 2x^2 - 3$
- $f(g(x)) = 2x^2 + 5$
- $f(g(x)) = 2x^2 + 3$
- $f(g(x)) = 2(x-1)$
- None of the above

Previous page




Select one:

- $-15/4$
- $17/4$
- $2/3$
- None of the others
- $15/4$

Question 6

Not yet answered

Marked out of 1.00

Flag question

Differentiate the following function with respect to x

$$(x^2-1)^{-\frac{1}{3}}$$

Select one:

- $\frac{2x}{3(x^2-1)^{\frac{2}{3}}}$
- $-\frac{4x}{3(x^2-1)^{\frac{4}{3}}}$
- None of the others
- $-\frac{2x}{3(x^2-1)^{\frac{4}{3}}}$
- $\frac{4x}{3(x^2-1)^{\frac{2}{3}}}$

Next page

Previous page

Solve the system simultaneous equations below.

$x + 5y = -13$

$2x - y = 7$

Which of the following is the value of y?

Select one:

- -11/5
- -2
- -7/3
- -3
- None of the above

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Question **6**

Not yet answered

Marked out of 1.00

Flag question

Differentiate the following function with respect to x

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

Select one:

- $\frac{2x}{3(x^2-1)^{\frac{2}{3}}}$
- $-\frac{4x}{3(x^2-1)^{\frac{4}{3}}}$
- None of the others
- $-\frac{2x}{3(x^2-1)^{\frac{4}{3}}}$
- $\frac{4x}{3(x^2-1)^{\frac{2}{3}}}$

Previous page

Suppose the matrix $A = \begin{pmatrix} 1 & 2 & 3 \\ 0 & -1 & 2 \\ 2 & 2 & y \end{pmatrix}$ and the determinant is 7. What is the value of $y$?

Select one:

- a. -3
- b. 6
- c. 1
- d. 5
- e. 3

Question 3

Not yet answered

Marked out of 1.00

Flag question

Differentiate the following function with respect to x

$$(x^2 - 2x + 3)\,(3x^3 - 4x^2 + 3)$$

Select one:

- $15x^4 - 40x^3 + 51x^2 - 30x + 6$
- $15x^4 - 36x^3 + 45x^2 - 12x - 6$
- None of the others
- $15x^4 - 40x^3 + 51x^2 - 18x - 6$
- $15x^4 - 60x^3 + 63x^2 - 12x - 12$

Question **4**

Not yet answered

Marked out of 1.00

Flag question

Which is not parallel to $3y=2x+4$

Select one:

- $3y+2x+6=0$
- $6y=4x+4$
- $12y-8x+8=0$
- $(3/2)y-x-9=0$
- None of the above

Previous page

Next

Question **19**

Not yet answered

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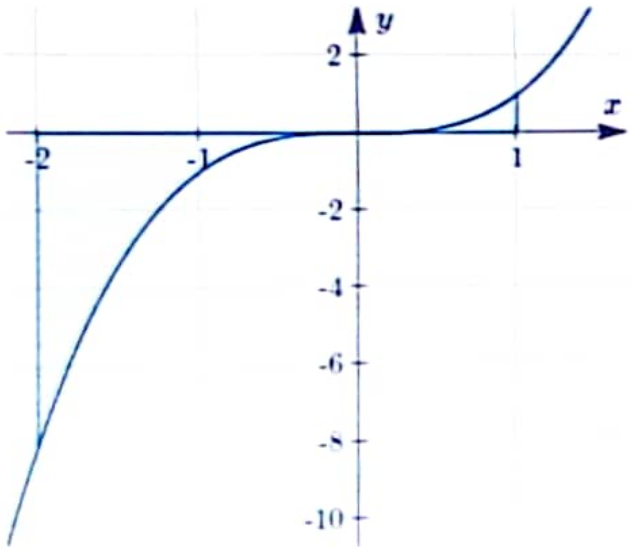
Find the area of the region between the function $f(x) = x^3$ and the x-axis from x=-2 to x=1 as shown below




Select one:

- $-15/4$
- None of the others
- $2/3$
- $17/4$
- $15/4$

Question 19

Not yet answered

Marked out of 1.00

Flag question

Find the Value of $x$ when $\log_2\left(\frac{x+3}{x-4}\right) = 3$.

Select one:

- a. 3
- b. 4
- c. 5
- d. 8
- e. 7

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Integrate the following function with respect to x

$$\int (2x^2 - 1)^2 \, dx$$

Select one:

- $\frac{4x^5}{5} - \frac{8x^3}{3} + 4x + C$
- $\frac{x^7}{7} - \frac{x^4}{2} + x + C$
- $\frac{4x^5}{5} - \frac{4x^3}{3} + x + C$
- None of the others
- $\frac{x^5}{5} - \frac{8x^3}{3} + 16x + C$

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Differentiate the following function with respect to x

$$\sqrt[3]{x^2-1}$$

Select one:

- $\frac{2x}{3(x^2-1)^{\frac{2}{3}}}$
- $\frac{2x}{3(x^2-1)^{\frac{2}{3}}}$

Question 5

Not yet answered

Marked out of 1.00

Flag question

Integrate the following function with respect to x

$$\int (2x^2 - 1)^2 \, dx$$

Select one:

- $\frac{4x^5}{5} - \frac{4x^3}{3} + x + C$
- None of the others
- $\frac{4x^5}{5} - \frac{8x^3}{3} + 4x + C$
- $\frac{x^5}{5} - \frac{8x^3}{3} + 16x + C$
- $\frac{x^7}{7} - \frac{x^4}{2} + x + C$

Previous page

Solve the system simultaneously.

$x + 5y = -13$

$2x - y = 7$

Which of the following is the value of $y$?

Select one:

- -11/5
- -2
- -7/3
- -3
- None of the above

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Flag question

Consider the following data set.

32, 26, -10, 46, 34, 72, 21, -21, 33

Find the median and Q3 (third quartile) for this data set.

Select one:

- Median: 32 and Q3: 40
- Median: 23 and Q3: 5.5
- Median: 40 and Q3: 32
- Median: 23 and Q3: 40

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ion 19

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ag question

Differentiate the following function with respect to x

$$\sqrt[3]{x^2-1}$$

Select one:

- $\frac{2x}{3(x^2-1)^{\frac{2}{3}}}$
- $-\frac{4x}{3(x^2-1)^{\frac{4}{3}}}$
- None of the others

Question **14**

Not yet answered

Marked out of 1.00

Flag question

Solve the system simultaneous equations below.

$x + 5y = -13$

$2x - y = 7$

Which of the following is the value of y?

Select one:

- -11/5
- -2
- -7/3
- -3
- None of the above

Previous page

Find $x$ when $\log_3(x^2 + 2x + 1) = 2$

Select one:

- a. -1 and 2
- b. 2 and 2
- c. 3 and 2
- d. 1 and 1
- e. 2 and -4

17
nswered
ut of
question

The average salary of a lower level employee in a reputed company is Rs.30000 and standard deviation is 3000. Due to increased sales, top management of the company decided to increase the salaries of all lower level employees by multiplying them by 3. Fir the standard deviation of new salaries of these employees.

Standard deviation: Choose...

Mean: Choose...

vious page

Question **8**

Not yet answered

Marked out of 1.00

Flag question

Integrate the following function with respect to x

$$\int (2x^2 - 1)^2 \, dx$$

Select one:

- $\frac{4x^5}{5} - \frac{8x^3}{3} + 4x + C$
- $\frac{x^7}{7} - \frac{x^4}{2} + x + C$
- $\frac{4x^5}{5} - \frac{4x^3}{3} + x + C$
- None of the others

$\frac{x^5}{5} - \frac{8x^3}{3} + 16x + C$

Question 7

Not yet answered

Marked out of 1.00

Flag question

A square and rectangle have the same area.

The length of the rectangle is five inches more than twice the length of the side of the square.

The width of the rectangle is 6 inches less than the side of the square.

Find the length of the side of the square

Select one:

- 10
- 15
- 20
- 30
- None of the above

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If the matrix $A = \begin{pmatrix} 5 & -1 \\ 5 & x \end{pmatrix}$ and $A^{-1} = \begin{pmatrix} 3/20 & 1/20 \\ -1/4 & 1/4 \end{pmatrix}$ the value of $x$ is,

Select one:

- a. 2
- b. 4
- c. -2
- d. 3
- e. 1

10
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question

Differentiate the following function with respect to x

$$(x^2 - 2x + 3)(3x^3 - 4x^2 + 3)$$

Select one:

- $15x^4 - 60x^3 + 63x^2 - 12x - 12$
- $15x^4 - 40x^3 + 51x^2 - 30x + 6$
- $15x^4 - 40x^3 + 51x^2 - 18x - 6$
- $15x^4 - 36x^3 + 45x^2 - 12x - 6$
- None of the others

Question 1

Not yet answered

Marked out of 1.00

Flag question

If the matrix $A = \begin{pmatrix} 5 & -1 \\ 5 & x \end{pmatrix}$ and $A^{-1} = \begin{pmatrix} 3/20 & 1/20 \\ -1/4 & 1/4 \end{pmatrix}$ the value of $x$ is,

Select one:

- a. 3
- b. 1
- c. 2
- d. -2
- e. 4

Next page

$$\frac{p^{2m+2}}{q} = \frac{q^{9-m}}{p}$$

What is the value of m?

Select one:

- 6
- 5
- -7/2
- -11
- None of the above

Question 12

Not yet answered

Marked out of .00

Flag question

Consider the following data set.

24, 56, -23, 65, 72, -43, 10, 54, 34

Find the median and Q1 (first quartile) for this data set.

Select one:

- Median : -6.5 and Q1 : 34
- Median : 24 and Q1 : 60.5
- Median : 34 and Q1 : -6.5
- Median : 24 and Q1 : 6.5

Previous page

Question **2**

Not yet answered

Marked out of 1.00

Flag question

Find f (g(x)) for the following 2 functions.

$f(x) = 2x - 1$

$g(x) = x^2 + 3$

Select one:

- $f(g(x)) = 2x^2 - 3$
- $f(g(x)) = 2x^2 + 5$
- $f(g(x)) = 2x^2 + 3$
- $f(g(x)) = 2(x-1)$
- None of the above

Previous page

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Flag question

write down the equation which passes through (0,1) and (3,4)

Select one:

- y=x+1
- 2y=x+1
- y=-x+1
- 2y=-2x+2
- None of the above

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