

## Question 12

Not yet answered

Marked out of 2.00

🚩 Flag question

The **slope of the tangent** to the curve

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

Select one:

- a. -17
- b. 1
- c. 13
- d. 5
- e. 17
- f. None
- g. -13

**Question 11**

Not yet answered

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Suppose that  $f(x) = \frac{g(x)}{x^2}$ ,  $g(2) = 2$ , and  $g'(2) = -2$ . Find  $f'(2)$ .

Select one:

- a.  $\frac{1}{16}$
- b.  $-\frac{1}{16}$
- c. None
- d. 0
- e. 1
- f. -1

## Question 19

Not yet answered

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$$\int 2\left(\frac{1}{\sqrt{x}} + \frac{1}{x}\right) dx =$$

Select one:

- a. None
- b.  $\frac{1}{x^{3/2}} - \frac{1}{x^2} + c$
- c.  $4\sqrt{x} + 2\ln|x| + c$
- d.  $\frac{\sqrt{x}}{2} + \ln|x| + c$
- e.  $\sqrt{x} + \ln|x| + c$

## Question 20

Not yet answered

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Suppose a company is considering an **increase in price** of its product. If doing so results in an **increase in revenues**, at this value of price the demand

Select one:

- a. Elastic
- b. Inelastic
- c. Unitary elastic

**Question 13**

Time left 1:14:06

Not yet answered

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If  $30p = \ln\left(\frac{q}{q^2+1}\right)$ ,  $q$  is quantity demanded at price  $p$ , find the rate of change of  $q$  with respect to  $p$  at  $q = 4$ . **(write a number only)**

Answer:

**Question 14**

Not yet answered

Marked out of 2.00

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Find the **slope** of the tangent to the curve  $x^2 + 4x - 3y^2 = 0$  at the point  $(2, 2)$ .

- a. None
- b.  $\frac{2}{3}$
- c.  $\frac{3}{4}$
- d.  $\frac{4}{3}$
- e. 1

Not yet answered

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Time left 1:20:46

Suppose that  $f(x) = \frac{g(x)}{x^2}$ ,  $g(2) = 2$ , and  $g'(2) = -2$ . Find  $f'(2)$ .

Select one:

- a.  $\frac{1}{16}$
- b.  $-\frac{1}{16}$
- c. None
- d. 0
- e. 1
- f. -1

[Clear my choice](#)**Question 12**

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The **slope of the tangent** to the curve

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

Select one:

- a. -17
- b. 1
- c. 13
- d. 5
- e. 17
- f. None
- g. -13

[Clear my choice](#)

Not yet answered

Marked out of 2.00

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Time left 0:48:49

$$\int \frac{6(\ln x)^2}{x} dx =$$

Select one:

- a. None
- b.  $\frac{(\ln x)^3}{3} + C$
- c.  $\frac{(\ln x)^3}{x} + C$
- d.  $\frac{\ln x^3}{3} + C$
- e.  $3 \ln x + C$
- f.  $2(\ln x)^3 + c$

**Question 22**

Not yet answered

Marked out of 2.00

Flag question

Find the **present value** (to the nearest integer) of \$40000 due in 4 years at an interest rate of 8% compounded semiannually.

Select one:

- a. \$29401
- b. \$31445
- c. \$30212
- d. \$29228
- e. \$27112

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ITC

Time left 1:23:56

## Question 9

Not yet answered

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If  $h(x) = \frac{f(x)}{g(x)}$ ,  $f(5) = 5$ ,  $g(5) = 2$ ,  $f'(5) = -1$  and  $g'(5) = -6$ , then  $h'(5) =$

- a. 7
- b. -8
- c. 8
- d. -7
- e. None
- f. 14

[Clear my choice](#)

## Question 10

Not yet answered

Marked out of 2.00

Flag question

A market **shortage** occurs when

- a. Quantity demand equals quantity supplied.
- b. None
- c. Quantity demanded is greater than quantity supplied
- d. Quantity demanded is less than quantity supplied

[Clear my choice](#)[Next page](#)


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Question **18**

Not yet answered

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 Flag question

The demand for a certain



Let  $R(x)$  be the revenue function for a product, then the exact increase in revenue caused by the 45th unit is \*

2 points

$$R'(45)$$

Option 1

$$R'(44)$$

Option 2

$$R(45) - R(44)$$

Option 3

$$R'(46) - R'(45)$$

Option 4


Back

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## Question 10

Not yet answered

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 Flag question

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- a. Quantity demand equals quantity supplied.
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Time left 1:27:46

## Question 9

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- a. 7
- b. -8
- c. 8
- d. -7
- e. None
- f. 14

## Question 10

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# Math235 Evaluation 1

\* Required

Choose the correct answer:

•

2 points

$f(x) = (x^2 + 3x - 2)^3$ , then  $f'(x) =$

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

Option 1

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

Option 2

$$4x^3 + 9x^2$$

Option 3

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

Option 4

If  $f(x)$  and  $g(x)$  are two functions such that \* 2 points

$$\lim_{x \rightarrow 2} f(x) = 4, \lim_{x \rightarrow 2} g(x) = -5, \text{ then } \lim_{x \rightarrow 2} (f(x) - 2g(x)) =$$

-1

9

14

-6

\*

2 points

Find  $f(4)$  if  $f(x) = \begin{cases} -x + 5, & x > 4 \\ x^2 - 2x, & x \leq 4 \end{cases}$

4

8

24

Undefined

$$f(x) = \frac{x + 4}{x - 4}, f'(x) =$$

$$\frac{8}{(x - 4)^2}$$

Option 1

$$\frac{-8}{(x - 4)}$$

Option 2

$$\frac{-8}{(x - 4)^2}$$

\*

2 points

If  $f(x)$  is a continuous function and  $\lim_{x \rightarrow 5} f(x) = 2$ , then  $f(5) = 2$

True

False

Let  $R(x)$  be the revenue function for a product, then the exact increase in revenue caused by the 45th unit is \*

2 points

$$R'(45)$$



Let  $R(x)$  be the revenue function for a product, then the exact increase in revenue caused by the 45th unit is \*

2 points

$$R'(45)$$

Option 1

$$R'(44)$$

Option 2

$$R(45) - R(44)$$

Option 3