Top of Form

Let [\int_1^3 f(x) dx=2, \, \int_1^2 f(x) dx=-5\,\, ](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\int_1%5e3+f(x)+dx=2,+\,+\int_1%5e2+f(x)+dx=-5\,\,+).   
  
Find [\int_3^2 f(x)dx](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\int_3%5e2+f(x)dx).

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. 7 |  |
|  | b. 3 |  |
|  | c. -3 |  |
|  | d. None of the other choices is correct |  |
|  | e. -7 |  |

Question 2

Marks: 1

Evaluate the indefinite integral

[\int\sqrt{4x}\sin(1+x^{3/2})\, dx](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\int\sqrt%7b4x%7d\sin(1+x%5e%7b3/2%7d)\,+dx)

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. [(2/3)\cos(1+(\sqrt{x})^3)+C](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(2/3)\cos(1+(\sqrt%7bx%7d)%5e3)+C) |  |
|  | b. [-(4/3)\cos(1+(\sqrt{x})^3)+C](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?-(4/3)\cos(1+(\sqrt%7bx%7d)%5e3)+C) |  |
|  | c. [(4/3)\cos(1+(\sqrt{x})^3)+C](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(4/3)\cos(1+(\sqrt%7bx%7d)%5e3)+C) |  |
|  | d. [-(2/3)\cos(1+(\sqrt{x})^3)+C](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?-(2/3)\cos(1+(\sqrt%7bx%7d)%5e3)+C) |  |

Question 3

Marks: 1

Use the Midpoint Rule with *n* = 5 to approximate the integral.

[\int_0^{10}2\sin\sqrt{q}dq](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\int_0%5e%7b10%7d2\sin\sqrt%7bq%7ddq)

The choices are rounded to 3 decimal places.

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. 5.781 |  |
|  | b. 9.998 |  |
|  | c. 4.781 |  |
|  | d. 12.929 |  |

Question 4

Marks: 1

Find the general indefinite integral.

[\int\frac{\sin 14t}{\sin 7t}dt](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\int\frac%7b\sin+14t%7d%7b\sin+7t%7ddt)

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. [-(2/7)\sin 7t+C](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?-(2/7)\sin+7t+C) |  |
|  | b. [(1/7)\cos 7t+C](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(1/7)\cos+7t+C) |  |
|  | c. [(2/7)\sin 7t+C](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(2/7)\sin+7t+C) |  |
|  | d. [(2/7)\cos 7t+C](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?(2/7)\cos+7t+C) |  |

Question 5

Marks: 1

Evaluate the integral.

[\int_{-2}^5|4x-x^2|\, dx](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\int_%7b-2%7d%5e5|4x-x%5e2|\,+dx)

The choices are rounded to the nearest hundredth.

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a.   209.00 |  |
|  | b.    23.67 |  |
|  | c. 123.67 |  |
|  | d. 102.33 |  |

Question 6

Marks: 1

Find the derivative of the function.

[g(x)=\int_1^x\sqrt{2+7t}\, dt](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?g(x)=\int_1%5ex\sqrt%7b2+7t%7d\,+dt)

Choose one answer.

|  |  |  |
| --- | --- | --- |
|  | a. [\sqrt{2+7x}-2](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\sqrt%7b2+7x%7d-2) |  |
|  | b. [\sqrt{2+7x}](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\sqrt%7b2+7x%7d) |  |
|  | c. [\sqrt{2+7x}-3](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\sqrt%7b2+7x%7d-3) |  |
|  | d. [\sqrt{2+7x}-1](http://cms.fpt.edu.vn/elearning/filter/tex/displaytex.php?\sqrt%7b2+7x%7d-1) |  |





Bottom of Form