Unleashing the toolbox

LATEST SUBMISSION GRADE

100%

1.Question 1

In this assessment, you will be tested on all of the different topics you have in covered this module. Good luck!

What is the derivative of the function f(x) = x^{3/2} + pi x^2 + \sqrt{7} evaluated at the point x = 2?

1 / 1 point

- f'(2) = 3/2 + 4*pi + \sqrt{7}
- f'(2) = 3/2 + 4*pi
- f'(2) = (3 sqrt(2)/(2) + 4*pi
- f'(2) = (3 sqrt(2)/(2) + 4*pi + sqrt{7}

2.Question 2

What is the derivative of the function f(x) = x^3cos(x)e^x?

1 / 1 point

- f'(x) = -3x^2sin(x)e^x
- f'(x) = -e^x x^3 sin(x) + e^x x^3cos(x) + 3e^x x^2 cos(x)
- f'(x) = -x^3sin(x) + e^x x^3 + 3e^x x^2cos(x)
- f'(x) = -e^x x^3 sin(x) + e^x x^3cos(x) + e^x x^2 cos(x)

3.Question 3

What is the derivative of the function f(x) = e^[(x+1)^2]?

1 / 1 point

- f'(x) = (x+1)e^{[(x+1)^2]}
- f'(x) = 2(x+1)e^{[(x+1)^2]}
- f'(x) = e^{[(x+1)^2]}
- f'(x) = e^{2(x+1)}

4.Question 4

What is the derivative of the function f(x) = x^2cos(x^3)?

1 / 1 point

- f'(x) = 2xcos(x^3) -3x^4cos(x^3)
- f'(x) = 2xcos(x^3) -3x^4sin(x^3)
- f'(x) = 2xsin(x^3) -3x^4cos(x^3)
- f'(x) = 2xsin(x^3) -3x^4sin(x^3)

5.Question 5

What is the derivative of the function f(x) = sin(x)e^{cos(x)} at the point $x=\pi$?

1 / 1 point

- f'(π) = -1/e^2
- f'(π) = - 1/e
- f'(π) = 1/e^2
- f'(π) = 1/e