Congratulations! You passed!

Grade received 100%

Latest Submission Grade 100% To pass 80% or higher

Go to next item

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

1 / 1 point

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

O
$$f'(2) = \frac{3\sqrt{2}}{2} + 4\pi + \sqrt{7}$$

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

1 / 1 point

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

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

$$O f'(x) = -3x^2 sin(x)e^x$$

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

⊘ Correct

Well done!

3. What is the derivative of the function $f(x)=e^{\left[(x+1)^2\right]}$?

1 / 1 point

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

$$\int f'(x) = e^{[(x+1)^2]}$$

$$\int f'(x) = e^{2(x+1)}$$

Well done!

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

1 / 1 point

- $\int f'(x) = 2x\sin(x^3) 3x^4\cos(x^3)$
- $\int f'(x) = 2x\sin(x^3) 3x^4\sin(x^3)$
- $\bigcirc \quad f'(x) = 2x cos(x^3) 3x^4 cos(x^3)$
- **⊘** Correct

Well done!

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

1 / 1 point

- $f'(\pi) = \frac{1}{e}$
- $\bigcirc \quad f'(\pi) = -\frac{1}{e^2}$
- $O f'(\pi) = \frac{1}{e^2}$
- **⊘** Correct

Well done!