

## **Congratulations! You passed!**

Next Item



1/1 point

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?



## Correct

Well done!

$$\qquad f'(2) = \tfrac{3}{2} + 4\pi$$

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

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



1/1 point

2.

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



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

Correct

Well done!

5/5 points (100%)

Quiz, 5 question 
$$f'(x) = -e^x x^3 sin(x) + e^x x^3 cos(x) + e^x x^2 cos(x)$$

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

1/1 point

3.

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

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

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

Correct

Well done!

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



1/1 point

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

$$\qquad f'(x) = 2xsin(x^3) - 3x^4sin(x^3)$$

$$\qquad f'(x) = 2xsin(x^3) - 3x^4cos(x^3)$$

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

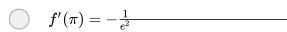
Correct

Well done!



5.

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



$$\int f'(\pi)=rac{1}{e^2}$$

$$f'(\pi) = -rac{1}{e}$$

Correct

Well done!

$$f'(\pi)=rac{1}{e}$$



