## Congratulations! You passed!

Next Item



In this assessment, you will be tested on all of the different topics you have in covered  $% \left\{ 1,2,\ldots ,n\right\}$ 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?

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

Well done!

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

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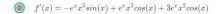
 $f'(2) = \frac{3}{2} + 4\pi + \sqrt{7}$ 



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



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



Well done!



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



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

Correct

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

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



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



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



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

Correct Well done!



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



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





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

Well done!