

1. (1 pt) Find the derivative of $h(t) = t \cos t + \sin t$

$$h'(t) = \underline{\hspace{2cm}}$$

Answer(s) submitted:

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(incorrect)

2. (1 pt) Let

$$f(x) = 7 \cos x - 9 \tan x$$

$$f'(x) = \underline{\hspace{2cm}}$$

$$f'\left(\frac{7\pi}{4}\right) = \underline{\hspace{2cm}}$$

Answer(s) submitted:

•

•

(incorrect)

3. (1 pt) If $f(x) = \frac{3 \tan x}{x}$, find $f'(x)$.

Find $f'(3)$.

Answer(s) submitted:

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•

(incorrect)

4. (1 pt) If

$$f(x) = \frac{\tan x - 3}{\sec x}$$

find $f'(x)$.

Find $f'(2)$.

Answer(s) submitted:

•

•

(incorrect)

5. (1 pt) If $f(x) = \frac{3x^2 \tan x}{\sec x}$, find $f'(x)$.

Find $f'(3)$.

Answer(s) submitted:

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(incorrect)

6. (1 pt) Find the equation of the tangent line to the curve $y = 3 \tan x$ at the point $(\pi/4, 3)$. The equation of this tangent line can be written in the form $y = mx + b$ where m is: _____ and where b is: _____

Answer(s) submitted:

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(incorrect)

7. (1 pt) Find the 27th derivative of $\sin(x)$ by finding the first few derivatives and observing the pattern that occurs.

$$(\sin(x))^{(27)} = \underline{\hspace{2cm}}$$

Answer(s) submitted:

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(incorrect)

8. (1 pt) Find the derivative of

$$w = (t^2 + 15)^{76}$$

$$\frac{dw}{dt} = \underline{\hspace{2cm}}$$

Answer(s) submitted:

•

(incorrect)

9. (1 pt) Find the derivative of

$$w(r) = \sqrt{r^7 + 15}$$

$$\frac{dw}{dr} = \underline{\hspace{2cm}}$$

Answer(s) submitted:

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(incorrect)

10. (1 pt) Find the derivative of

$$f(x) = e^{9x}(x^2 + 7^x)$$

$$f'(x) = \underline{\hspace{2cm}}$$

Answer(s) submitted:

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(incorrect)

