

Derivative Practice Find the derivative of the following functions.

1. $f(x) = x \cos x$

2. $f(x) = \frac{3 \sin x}{x}$

3. $f(x) = \cos(\ln(x))$

4. $f(x) = 3 \sec x + \frac{2}{x} + \tan(x^2)$

5. $y = e^{\sin(x)}$

6. $f(x) = \cos(\sin(x))$

7. $f(x) = \ln(\cos(x))$

8. $h(x) = \frac{\tan(x)}{3 \cos^2(x) - \pi x}$

9. $f(x) = \ln(5x - 3)$

10. $f(x) = \sec(5x - 3)$

11. $h(x) = 5^{5x-3}$

12. $h(x) = 5^{5 \cos x - 3}$

13. $f(x) = \sin(e^{5x-3})$

14. $h(t) = \frac{1}{\cos(t^3)} - \frac{2}{e^t}$

15. $R = \cos(s^4 - 8) + s \sin(7)$

16. $C = (\sin^2(q^2 + 1) + \cos^2(q^2 + 1))$

17. $y = \frac{\sin(x(x - 2))}{\tan(4^x)}$

18. $y = e^{(1-x^2)}$