

Derivatives of Logarithmic Functions

Directions: Find the derivative of each function.

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

2. $g(x) = \ln(3x^3)$

3. $h(x) = \ln(x^2 - 5x + 1)$

4. $f(x) = \ln(\sec x)$

5. $f(x) = \ln(\sin^2 x)$

6. $f(x) = \ln(3 \sin(x^2))$

7. $g(x) = \log_2(x^5)$

8. $h(x) = \log_5(\cos x)$

9. $f(x) = \log(4x^3 + \cot x)$

10. $f(x) = \ln(\ln x)$