

Math 131 Quiz 4

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1. Find the derivatives $f'(x)$ of

$$f(x) = \frac{1}{x^4} + 6 \text{ and}$$

$$g'(t) \text{ of } y = g(t) = 3t^2 + \frac{12}{\sqrt{t}} - \frac{1}{t^2}$$

2. What is the derivative of

a) $f(x) = x^2 + 4^x - 3\ln(x)$

b) $h(x) = 2^x$

What is $h'(2)$?

3. Consider the function $f(w) = \ln(w^2 + 1)$

Find $f'(w)$ and $f'(3)$

4. If $y = f(t) = e^{-4t}$ find $f'(t)$ and $f''(t)$