

Intellectual Need-Provoking Task for Antiderivatives

1. Find a function with the following derivative: $f(x) = 2x^3 - \frac{4}{x^2} + \pi$
2. Find a function with the following derivative: $g(x) = \sin(2x)$
3. Find a function with the following derivative: $h(x) = \frac{1}{x}$