

Class Drill 15: Conceptual Questions about Antiderivatives

Circle the correct answer. Check your answers by differentiating.

[1] The constant function $f(x) = \pi$ is an antiderivative of the constant function $k(x) = 0$. true false

[2] The constant function $k(x) = 0$ is an antiderivative of the constant function $f(x) = \pi$. true false

[3] The constant function $k(x) = 0$ is an antiderivative of itself. true false

[4] If n is an integer, then $\frac{x^{n+1}}{n+1}$ is an antiderivative of x^n . true false

[5] The function $g(x) = 5e^x$ is an antiderivative of itself. true false

[6] The function $h(x) = 5e^\pi$ is an antiderivative of itself. true false