Group Work 25: Antiderivatives
MATH 2301 (Barsamian)

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

[7] The function $\frac{1}{x}$ is an antiderivative of the function $\ln(x)$.  true  false

[8] The function $x \ln x - x$ is an antiderivative of the function $\ln(x)$.  true  false

[9] The function $\ln(x)$ is an antiderivative of the function $\frac{1}{x}$.  true  false

[10] The function $\ln|x|$ is an antiderivative of the function $\frac{1}{x}$.  true  false