



Mathematics Department
2020/2021

Name:

Antiderivatives 2

Date

find the antiderivative.

Q1: $\int \frac{5}{x^2+1} dx$

a) $5\tan^{-1}x$

b) $5\tan^{-1}\frac{x}{5} + c$

c) $\tan^{-1}x + c$

d) $5\tan^{-1}x + c$

Q2: $-\int \frac{2x}{x^2+1} x dx$

a) $\tan^{-1}x + c$

b) $\tan^{-1}x + c$

c) $\ln|x^2 + 1| + c$

d) $\ln|x^2 + 1|$

Q3: $-\int \frac{e^x}{e^x-5} dx$

a) $\ln|e^x - 5| + c$

b) $\ln|e^x - 5|$

c) $e^{2x} - 5x + c$

d) $\ln|e^{2x} - 5x| + c$

Q4: $-\int \sec 3x \tan 3x dx$

a) $\tan 3x + c$

b) $\sec x + c$

c) $\sec 3x + c$

d) $\sec^2 3x + c$

Q5: $-\int \frac{\cos x}{\sin^2 x} dx$

a) $\csc x \cot x + c$

b) $-\cot x + c$

c) $\csc x + c$

d) $-\csc x + c$