integreation bee joes disciples selwynthm answers

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1 Introduction

integration . ALL CAPITAL LETTERS ARE CONSTANTS OF INTEGRATION.

2 answers

1. sum the powers and get $x^{e-2} + U$.

4. $\frac{\pi}{4}$ lul

7. see answer to 22

18. sub $x = cos^2(\theta)$ to get $x\sqrt{\frac{1}{x} - 1} - \arctan(\frac{1}{x} - 1) + Z$.

22. did loads of symmetry subs and got $\frac{\pi \ln(2)}{8}$ (plus a constant $E = 0$).

24. let $x = \sin\theta$ and trivially get $x - \sqrt{1 - x^2}\arcsin(x) + E$ (E is not necessarily 0).

28. trivially $(1 + \sqrt{2})\ln(2) + N$.

29. draw graph and sum ne^{-n}, get $\frac{e}{e^2 - 2e + 1}$.

31. bruh epic summation after subbing 1/x, gives $\frac{\pi^2}{6} - 1$?!

32. trivial by feynman+ngl i already knew result sinx/x 0 to infty but anyway i think it's $\frac{\pi(a-b)}{2}$.

34. convert to exponential and sub e**(2x), gives $\boxed{2}$.

39. $\frac{1}{\sqrt{2}}\arctan\frac{1}{\sqrt{2}}\tan(2x) + D$ by trig identities and squaring (sin2+cos2)