

The UK University Integration Bee 2021/22

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18. $\sqrt{x(1-x)} + \arcsin \sqrt{x} + C$

20. $\frac{1}{2}x\sqrt{x^2-1} - \frac{\operatorname{arccosh} x}{x} + C$

22. $\frac{\pi}{8} \ln 2$

24. $-\arcsin x\sqrt{1-x^2} + x + C$

29. $\frac{1}{e-1}$

31. $\frac{\pi^2}{6}$

34. 2