MAC2312: Calculus 2 - Section 3

Quiz 5: 7.6 Integration Using Tables and CAS — June 2, 2015

1. Use the formula

$$\int \sqrt{2au - u^2}\, du = \frac{u-a}{2}\sqrt{2au-u^2} + \frac{a^2}{2}\cos^{-1}\left(\frac{a-u}{a}\right) + C$$

to evaluate $\int \sqrt{x - x^2}\, dx$.

A. $\frac{2x-1}{4}\sqrt{x-x^2} + \frac{1}{8}\cos^{-1}(1-2x) + C$

B. $\frac{x-1}{2}\sqrt{x-x^2} + \frac{1}{2}\cos^{-1}(1-x) + C$

C. $\frac{x-2}{2}\sqrt{x-x^2} + 2\cos^{-1}\left(\frac{2-x}{2}\right) + C$

D. $\frac{4x-1}{8}\sqrt{x-x^2} + \frac{1}{32}\cos^{-1}\left(\frac{4-x}{4}\right) + C$