

# MA 166: Quiz 5

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You have **15 minutes** to complete this quiz. You may work in groups, but you are not allowed to use any other resources.

**Problem 1.** Evaluate the integral

$$\int_0^{\pi/2} \cos^2 x \, dx.$$

**Problem 2.** Evaluate the integral

$$\int \frac{x^2}{\sqrt{4-x^2}} \, dx.$$

(Use  $C$  for the constant of integration.)

**Problem 3.** Evaluate the integral

$$\int \frac{e^x}{1-e^{2x}} \, dx$$

[HINT: First use a substitution and then partial fractions.]