Formulae Provided on Quizzes/Exams

$$\int \tan x \, \mathrm{d}x = \ln|\sec x| + C \qquad \int \sec x \, \mathrm{d}x = \ln|\sec x + \tan x| + C \qquad \int \cos^2 x \, \mathrm{d}x = \frac{1}{2}x + \frac{1}{4}\sin 2x + C$$

$$\sin 2x = 2\sin x \cos x \qquad \cos 2x = \cos^2 x - \sin^2 x \qquad \tan 2x = \frac{2\tan x}{1 - \tan^2 x}$$

$$\sin^2 x = \frac{1 - \cos 2x}{2} \qquad \cos^2 x = \frac{1 + \cos 2x}{2}$$