

Math 16B
Kouba
Handout 6

Find the following indefinite integrals.

1.) $\int \cos^2 x \, dx$

2.) $\int \cos^2 3x \, dx$

3.) $\int (1 + \sin x + \cos x)^2 \, dx$

4.) $\int 2x \sec(x^2 + 1) \tan(x^2 + 1) \, dx$

5.) $\int (x \sec^2 x + \tan x) \sec^2(x \tan x) \, dx$

6.) $\int (1 - \sin x) \sin(x + \cos x) \, dx$

7.) $\int \frac{3x^2 \sin x - x^3 \cos x}{\sin^2 x} \, dx$