

In-Class Assignment 6: Trigonometric Integrals

MATH 142

Directions: Work neatly on this page. Your group will hand in one write-up with everyone's name.

1. $\int \sin^2 x \cos^2 x dx$

2. $\int \cos^5 x dx$

3. $\int \sec^6 x dx$

4. $\int \sin^5 x \cos^3 x dx$

5. $\int x \sec x \tan x dx$

6. $\int \sin(8x) \cos(5x) dx$

(OVER)

7. $\int \tan^3 x \sec x dx$

8. (Challenge) $\int \frac{1}{\cos x - 1} dx$

9. (Challenge) $\int \sec^3 x dx$

10. (Challenge) $\int_0^{2\pi} \sin(mx) \cos(nx) dx$