

## Math 1B Discussion Problems 5 Feb

1. Evaluate the following integrals.

(a)  $\int \sin^3 x dx$

(b)  $\int \sin^2 x \cos^6 x dx$

(c)  $\int \tan^2 x \sec x dx$

(d)  $\int \sqrt{1 - \cos x} dx$

(e)  $\int \frac{x^2}{\sqrt{4-x^2}} dx$

(f)  $\int \frac{\sqrt{9+x^2}}{x^2} dx$

(g)  $\int \frac{e^x}{\sqrt{e^{2x}+1}} dx$

(h)  $\int \frac{x}{\sqrt{3+2x-x^2}} dx$