



## Integration IV - Tutoring Sheet #18

Evaluate the following integrals:

a.  $\int x^3(x^2 + 1)^{3/2} dx$

b.  $\int x^5 e^{x^3} dx$

c.  $\int (x + 2)^2 \ln x dx$

d.  $\int \frac{dx}{1 + e^x}$

e.  $\int \frac{\ln x dx}{x((\ln x)^2 + 1)}$

f.  $\int \frac{x}{(x + 1)^3} dx$

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

h.  $\int \frac{dx}{\sqrt{x}(x - 5\sqrt{x} + 6)}$

i.)  $\int \frac{dx}{\sqrt{\tan x \cos^2 x}}$

f.)  $\int \frac{\sqrt{1 + \sqrt{e^{-x}}}}{\sqrt{e^x}} dx$