

Assignment 3 (1/8)

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Problem 1

Find the integrals of the following functions:

- (a) $\frac{1-\cos(x)}{1+\sin(x)}$
- (b) $\cos(2x)\ln(1+\tan x)$
- (c) $\frac{\sqrt{x}}{1+\sqrt{x}}$
- (d) $\frac{1}{\sin(x)+\tan(x)}$
- (e) $\frac{1-e^x}{1+e^x}$ [Hint: What is $\tanh(x)$?]
- (f) $\frac{1}{x-\sqrt{x^2+1}}$
- (g) $x2^x$
- (h) $\ln(x\sqrt{x})$