

Final Exam Practice 1 (due April 15)

1. If $\int_1^3 f(w) dw = 7$, then use a substitution to show that

$$\int_1^2 f(5 - 2x) dx = \frac{1}{2}$$

2. Use integration by parts to show

$$\int \frac{t}{\sqrt{t+1}} dt = 2t\sqrt{t+1} - \frac{4}{3}(t+1)^{\frac{3}{2}} + C$$