

Written Homework Problems §5.5

16 problems for 32 points

Problems in **red** are optional extra practice.

Evaluate the integrals from problems A - E.

Problem A: $\int \sqrt{1+2x} \, dx$

Problem B: $\int \cos\left(\frac{x}{3}\right) \, dx$

Problem C: $\int \frac{5}{(5-8x)^2} \, dx$

Problem D: $\int_0^4 \sqrt{1+2x} \, dx$ (HINT: See Problem A above!)

Problem E: $\int_0^{3\pi/2} \cos\left(\frac{x}{3}\right) \, dx$ (HINT: See Problem B above!)

§5.5 #273, **275**, 277, 279, 281, 283, 284, **285**, **292**, 293, 296, 297, 305

Problem F: This section involved learning a method of integration called u -substitution. In your own words, how would you explain to someone else in the class *how* they should pick u ?