

Due date: _____

Name: _____

1. Evaluate the following integrals.

a) $\int 3xe^{x^2+2} dx$

b) $\int e^{2\cos x} \cdot \sin x dx$

c) $\int \cos x \sqrt{1 + \sin x} dx$

$$d) \int \frac{\sec x \tan x}{1 + \sec^2 x} dx$$

$$e) \int \sqrt{-2x + 3} dx$$

$$f) \int \frac{2}{3-5x} dx$$

$$g) \int \frac{2}{x(\ln x)^3} dx$$

$$h) \int \frac{\log_2 x}{x} dx$$

$$i) \int \frac{2 \sin x \cos x}{1 + \cos^2 x} dx$$

$$j) \int \frac{dx}{(\tan^{-1} x)^2(1+x^2)}$$

$$k) \int \tan x \, dx$$

$$l) \int \cot x \, dx$$

m) $\int (2x^2 + 1)(2x^3 + 3x + 3)^5 dx$

n) $\int \frac{3x^3 + 6}{(x^4 + 8x)^5} dx$

o) $\int x\sqrt{1 - x^2} dx$

p) $\int x\sqrt{1-x} dx$

q) $\int \frac{x+1}{x^2+1} dx$

Q: Which eight-letter word still remains a word after removing each letter from it?

Optional exercises from the Stewart textbook if you'd like more practice:

5.5 (p.418) #1-47 odd