

Quizzes, Spring 2008, Math 112

Quiz 1.1 A rock is dropped into a well. It hits the bottom after 4 seconds. Recall that the acceleration due to gravity is $-32ft/sec^2$.

- a) $a(t) =$
- b) $v(t) =$
- c) $s(t) =$
- d) How deep is the well?
- e) What is the final velocity of the rock?
- f) What is the average velocity of the rock?

Quiz 2.1 Find the integral. Show all work.

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

Quiz 3.1 Find the area between the curves $x = y^2$ and $y = x^4$ in the first quadrant.

Quiz 5.1 $\int t \sin(3t) dt$

Quiz 5.2 $\int e^t \sin(t) dt$

Quiz 6.1 $\int \sin^3(2x) \cos^4(2x) dx$

Quiz 6.2 $\int x^2 \sin x dx$

Quiz 7.1 $\int \frac{x^3 + x^2 + 4x - 1}{(x-1)^2(x^2+4)} dx$

All constants (the letters) are equal to 1. You can just use this fact.

Quiz 8.1 $\int x^2 e^x dx$

Quiz 8.2 $\int \frac{1}{\sqrt{4+x^2}} dx$

Quiz 8.3 $\int \frac{x^2 - x - 9}{(1+x)^2(x-2)} dx$

Quiz 8.4 $\int \sin^{3/2} x \cos^3 x dx$

Quiz 8.5 $\int \frac{\sqrt{x^2-25}}{x} dx$

Quiz 8.6 $\int \sec^3 x dx$

Quiz 9 is Practice test 2