

NOR FLORIDA ST



## 1. Introduction







**Begin Quiz** Using the discriminant,  $b^2 - 4ac$ , respond to each of the following questions.







2. What T<sub>E</sub>X System does Fabrice P maintain?

MikT<sub>E</sub>X<sup>XX</sup>      E<sup>E</sup>

## Solutions to Exercises

**Exercise 1.** We evaluate by integration by parts:

$$\begin{aligned} \int x^2 e^{2x} dx &= \frac{1}{2} \int x^2 e^{2x} \cdot 2 dx & u = x^2, dv = e^{2x} dx \\ &= \frac{1}{2} x^2 e \end{aligned}$$

**Problem 2.1.** The answer is yes. The definition states that  $F$  is an antiderivative of  $f$  if  $F'(x) = f(x)$ .

**Problem 2.2.** The answer is yes. The definition states that  $F$  is an antiderivative of  $f$  if  $F'(x) = f(x)$ .

**Exercise 2(b)** Acceleration is the rate of change of velocity with respect to time. Thus,

$$\overline{dt}$$

**Exercise 3(a)**  $i^2 = -1$

## Exercise 3(b)







**Solution to Quiz:**

In 1492,

## **Solution to Quiz:**

## **Solution to Quiz:**