

## Section 7.7: Complex Numbers

**Definition: Complex Numbers** *ADD* $i$  and  $i^2$ 

$$i = \sqrt{-1} \quad \text{and} \quad i^2 = -1$$

$$\sqrt{-a} = i\sqrt{a}$$

If  $a$  is a positive real number, then

$$\sqrt{-a} = \sqrt{-1} \cdot \sqrt{a} = i\sqrt{a}$$

Example 1: Simplify.