

Section 5.5 Algebra 2  
Complex Numbers and Roots  
Worksheet #1

Name \_\_\_\_\_

Simplify. Express each number in terms of  $i$ .

1.  $\sqrt{-4}$

2.  $\sqrt{-20}$

3.  $\sqrt{-32}$

4.  $3\sqrt{-9}$

Solve each equation over the set of complex numbers.

5.  $x^2 = -81$

6.  $4x^2 + 48 = 0$

7.  $x^2 + 25 = 0$

8.  $6x^2 = -126$

Find each complex conjugate.

9.  $-3i$

10.  $-3 - 2i$

11.  $\sqrt{2} + 4i$

12.  $-1 + 8i$