

# Answer Key

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## Practice C

1.  $-\frac{\sqrt{14}}{2}i, \frac{\sqrt{14}}{2}i$  2.  $-1 - \sqrt{3}i, -1 + \sqrt{3}i$
3.  $4 - \frac{\sqrt{2}}{2}i, 4 + \frac{\sqrt{2}}{2}i$  4.  $-2i, 2i$
5.  $-6 - \frac{\sqrt{21}}{3}i, -6 + \frac{\sqrt{21}}{3}i$
6.  $1 - \frac{\sqrt{6}}{2}i, 1 + \frac{\sqrt{6}}{2}i$  7.  $a > 0, b > 0$
8.  $a < 0, b > 0$  9.  $a < 0, b < 0$
10.  $a > 0, b < 0$  11.  $a > 0, b = 0$
12.  $a = 0, b < 0$  13.  $-1 + 3i, \sqrt{10}$
14.  $8 - 7i, \sqrt{113}$  15.  $3 - i, \sqrt{10}$
16.  $-1 + 3i, \sqrt{10}$  17.  $-1, 1$
18.  $14 + 2i, 10\sqrt{2}$  19.  $4 - 7i, \sqrt{65}$
20.  $\frac{11}{17} + \frac{10}{17}i, \frac{\sqrt{221}}{17}$  21.  $\frac{13}{34} - \frac{i}{34}, \frac{\sqrt{170}}{34}$
22.  $|z_0| = 0, |z_1| = 3, |z_2| = 6, |z_3| = 33$ ;  
Not a member. 23.  $|z_0| = 0, |z_1| = \sqrt{5}$ ,  
 $|z_2| = 5\sqrt{2}, |z_3| = \sqrt{2605}$ ; Not a member.
24.  $|z_0| = 0, |z_1| = 2, |z_2| = 2\sqrt{5}, |z_3| = 2\sqrt{85}$ ;  
Not a member. 25. real 26. pure imaginary
27. real 28. imaginary