

Xavier University of Louisiana

Study Guide for the Xavier Mathematics Placement Test

9. Solving quadratic equations by factoring and the quadratic formula, complex solutions

Practice Problems

Solve for x :

1 $x^2 - 49 = 0$ $x = \pm 7$

2 $x^2 = 7x - 12$ $x = 3, x = 4$

4 $x^2 + 9x + 1 = 0$ $x = \frac{-9 \pm \sqrt{77}}{2}$

5 $x^2 + 7x + 3 = 0$ $x = \frac{-7 \pm \sqrt{37}}{2}$

6 Rewrite the complex number $\frac{4-i}{3i}$ in the form $a + bi$ $-\frac{1}{3} - \frac{4}{3}i$

7 Find the imaginary part of the complex number $-3 - 5i$ -5