

## Handout 2: Finding Your Roots

1. Solve using the quadratic formula  
 $x^2 - 5x + 3 = 0$ .
2. Solve using the quadratic formula  
 $-3x^2 - 4x - 1 = 0$ .
3. Solve using the quadratic formula  
 $10x^2 + 5x - 15 = 0$ .
4. Solve using the quadratic formula  
 $2x^2 + 8x + 8 = 0$ .
5. Solve using the quadratic formula  
 $\frac{1}{2}x^2 + x + 7 = 0$ .
6. Solve using the quadratic formula
7. Solve using the quadratic formula  
 $-3x^2 + 3x - 4 = 0$ .  
 $4x^2 + 12x + 9 = 0$ .
8. Solve using the quadratic formula  
 $-2x^2 + 4x - 3 = 0$ .
9. How many real number or complex number roots does the following equation have?  
 $5x^2 + 8x + 2 = 0$
10. How many real number or complex number roots does the following equation have?  
 $-3x^2 + 6x - 13 = 0$