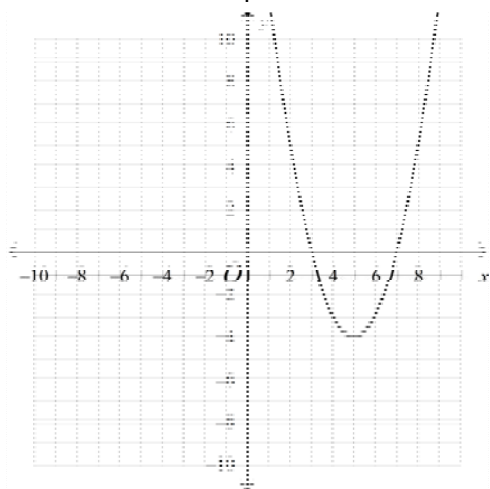


## Alg 2 - Quadratics Study Guide

### Answer Section

1. C
2. A
3.  $26 - 12i$
4.  $-3 + 8i$
5.  $5i\sqrt{5}$
6.  $4i\sqrt{3}$
7. vertex:  $(-2, 5)$ ;  
y-intercept:  $-7$
8.  $y = -3(x - 2)^2 + 4$
9.  $y = -(x + 3)^2 - 2$
10.  $y = (x + 5)^2 - 9$
11.  $y = (x + 5)^2 - 8$
12.  $(3k + 4)(k - 8)$
13.  $(5x + 6)(5x - 6)$
14.  $-8, 1$
15.  $10 + 2i$
16.  $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
17.  $\frac{-5 \pm i\sqrt{7}}{4}$  or  $-\frac{5}{4} \pm \frac{i\sqrt{7}}{4}$
18.  $\frac{1}{5}, -2$
19.  $\frac{1 \pm \sqrt{65}}{4}$  or  $\frac{1}{4} \pm \frac{\sqrt{65}}{4}$



- 20.
21. 4 and -7
22. 0; one real solution
23. -3; two imaginary solutions

24. vertex form, down, vertex at (5, 2)
25. standard form, up, y-intercept at 11
26. factored form, down, roots at 13 and -17
27.  $y = 2x^2 - 5x - 3$
28.  $0 = -16t^2 + 116t + 101$ ; 8 s
29. 10.2 yards