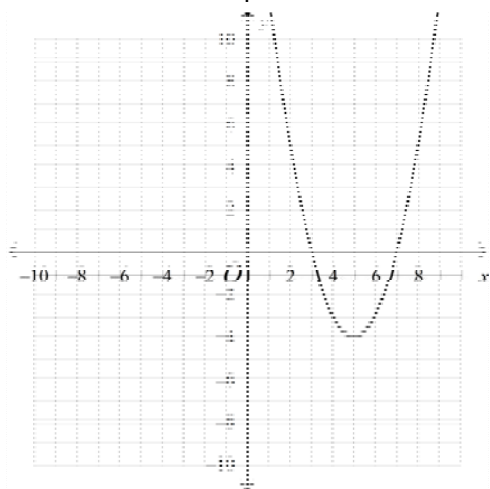


IM2 - Quadratics Study Guide

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. $0 = -16t^2 + 116t + 101$; 8 s
28. 10.2 yards