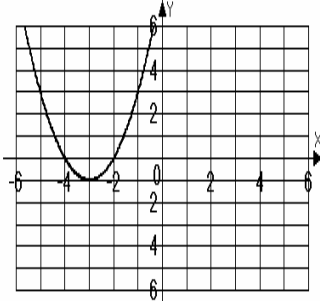


Chapter 10 Answers

Form A

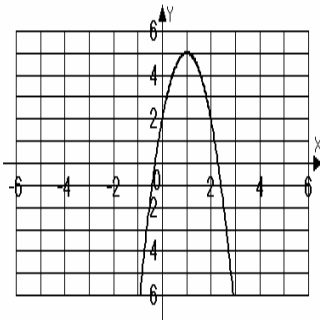
1. $9i$ 2. $4\sqrt{2}i$ 3. -10 and 2 4. $-3 \pm 2\sqrt{3}$ 5. $\frac{5 \pm \sqrt{23}i}{4}$ 6. $-3 \pm \sqrt{5}$ 7. $\pm 7i$
 8. $-\frac{1}{2}$ and 4 9. $\frac{1 \pm 2\sqrt{6}i}{5}$ 10. $\frac{-1 \pm \sqrt{11}i}{3}$ 11. $\frac{3 \pm \sqrt{19}}{2}$ 12. x -int.: -4 and -2 ; y -int.: 8

13.



vertex: $(-3, -1)$ 14. x -int.: -0.3 and 2.3 ; y -int.: 2

15.



vertex $(1, 5)$ 16. 2 sec; 56 ft.

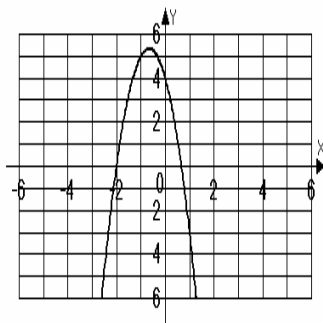
17. Function: yes; Domain: $\{1, 5, 3\}$; Range: $\{2, 6, 7\}$

18. Function: yes; Explain: Passes vertical line test 19. 10 20. If 10 shoppers enter the store, there should be a profit of $\$208.50$.

Form B

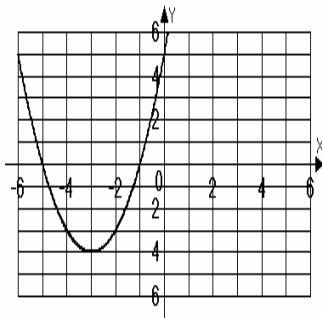
1. $15i$ 2. $10\sqrt{2}i$ 3. ± 3 4. $4 \pm \sqrt{14}$ 5. $\frac{-2 \pm \sqrt{2}i}{3}$ 6. $\pm 7i$ 7. -4 and -1 8. $\frac{-2 \pm 3\sqrt{3}}{3}$
 9. -3 and $\frac{7}{3}$ 10. $2 \pm i$ 11. $\frac{-1 \pm \sqrt{13}}{4}$ 12. x -int.: -2 and $\frac{2}{3}$; y -int.: 4

13. $\left(-\frac{2}{3}, \frac{16}{3}\right)$



14. x -int.: -5 and -1 ; y -int.: 4

15.



(-3, -4) 16. The height is 1208 ft. 5 seconds after launch.

17. No; Domain: {3}; Range: {8, 4, -1} 18. Yes; passes vertical line test 19. 7

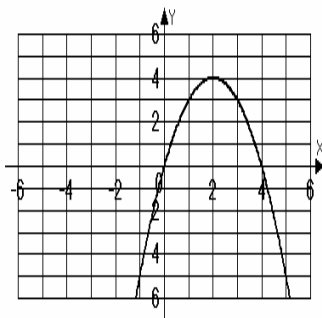
20. $8\sqrt{2}$ ft; 11.3 ft

Form C

1. $6i$ 2. $12\sqrt{2}i$ 3. $-\frac{8}{5}$ and $\frac{2}{5}$ 4. $-6 \pm 4\sqrt{2}$ 5. $\frac{2 \pm \sqrt{2}i}{2}$ 6. $\frac{-1 \pm 2i}{5}$ 7. $\pm \frac{4}{3}i$ 8. -2

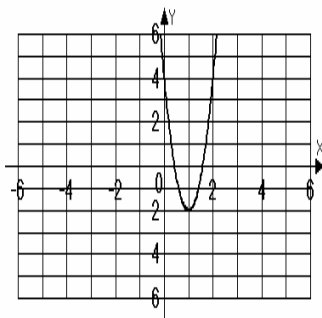
9. 0 and -3 10. $\frac{1}{2}$ and $\frac{3}{5}$ 11. $\frac{-2 \pm \sqrt{6}}{3}$ 12. x-int.: 0 and 3; y-int.: 0

13.



(2, 4) 14. x-int.: 0 and 4; y-int.: 0

15.



(1, -2) 16. \$35,000

17. Yes; Domain: {1, 2, 3}; Range {5, 7, 9} 18. Yes; passes the vertical line test 19. -1

20. $26\sqrt{2}$ in.; 36.8 in.

Form D

1. a 2. c 3. c 4. b 5. c 6. c 7. d 8. d 9. a 10. d 11. b 12. a 13. c 14. c
15. c 16. d 17. b 18. a 19. d 20. b

Form E

1. b 2. c 3. a 4. b 5. b 6. a 7. d 8. b 9. d 10. d 11. c 12. c 13. a 14. a
15. b 16. d 17. a 18. c 19. a 20. b

Form F

1. b 2. b 3. d 4. c 5. d 6. a 7. b 8. a 9. d 10. b 11. c 12. b 13. c 14. a
15. b 16. d 17. a 18. d 19. c 20. b