

## CHAPTER

## 5

## Quiz

## Section B

Select the best answer.

- Solve  $36x^2 + 169 = 0$ .  
 A  $\pm \frac{6}{13}i$                       C  $\pm \frac{13}{6}i$   
 B  $\pm \frac{6}{13}$                          D  $\pm \frac{13}{6}$
- Use the Quadratic Formula to solve  $x^2 - 4x + 18 = 0$ .  
 F  $-2 \pm i\sqrt{14}$                 H  $2 \pm i\sqrt{14}$   
 G  $-2 \pm \sqrt{14}$                  J  $2 \pm \sqrt{14}$
- For the discriminant  $\sqrt{(-6)^2 - 4 \cdot 4 \cdot 3}$ , identify the number of solutions and their type(s).  
 A 1 real solution  
 B 2 real solutions  
 C 1 real and 1 complex solution  
 D 2 complex solutions
- Solve  $x^2 - 3x - 40 < 14$ .  
 F  $x < -6$  or  $x > 9$   
 G  $-6 < x < 9$   
 H  $x < -8$  or  $x > 5$   
 J  $-8 < x < 5$
- Solve  $x^2 - 14x + 45 \geq -3$ .  
 A  $5 \leq x \leq 9$                 C  $6 \leq x \leq 8$   
 B  $x \leq 5$  or  $x \geq 9$         D  $x \leq 6$  or  $x \geq 8$
- Write a quadratic equation that fits the points  $(-1, 3)$ ,  $(0, 10)$ , and  $(5, -15)$ .  
 F  $f(x) = -2x^2 + 5x + 10$   
 G  $f(x) = -\frac{8}{117}x^2 + \frac{4}{3}x + 10$   
 H  $f(x) = \frac{2}{9}x^2 - \frac{13}{3}x + 10$   
 J  $f(x) = \frac{16}{13}x^2 - 8x + 10$
- Selena is standing on a rock cliff that is 25 feet high. She tosses a pebble upward over the edge, where it hits the top of a 4-foot high tree stump. The quadratic equation that models the path of the pebble is  $p(t) = -16t^2 + 10t + 25$ . How long did it take for the pebble to bounce off of the tree stump?  
 A 0.75 seconds                C 1.50 seconds  
 B 1.25 seconds                D 2.00 seconds
- Simplify  $\frac{21 - 16i}{i^3}$ .  
 F  $-16 - 21i$                  H  $16 - 21i$   
 G  $-5i$                          J  $16 + 21i$
- Simplify  $(11 - 4i)(-5 - 9i)$ .  
 A  $-89 + 79i$                  C  $-19 + 79i$   
 B  $-55 - 80i$                  D  $19 - 7i$
- Simplify  $|8 - 10i|$ .  
 F 2                                H  $2\sqrt{41}$   
 G  $3\sqrt{2}$                         J  $8 + 10i$

## Answer Key continued

---

- 36. F
- 37. D
- 38. F
- 39. B
- 40. G
- 41. D
- 42. F
- 43. C

### CHAPTER 5

---

#### Section Quiz: Section A

- 1. D
- 2. G
- 3. C
- 4. F
- 5. B
- 6. J
- 7. B
- 8. F

#### Section Quiz: Section B

- 1. C
- 2. F
- 3. D
- 4. G
- 5. D
- 6. F
- 7. C
- 8. J
- 9. A
- 10. H

#### Chapter Test Form A

- 1. C
- 2. A

- 3. B
- 4. B
- 5. B
- 6. A
- 7. C
- 8. B
- 9. A
- 10. A
- 11. B
- 12. B
- 13. A
- 14. B
- 15. A
- 16. A
- 17. C
- 18. A
- 19. D
- 20. B

#### Chapter Test Form B

- 1. B
- 2. H
- 3. A
- 4. H
- 5. D
- 6. G
- 7. C
- 8. F
- 9. B
- 10. G
- 11. C
- 12. H
- 13. D