

Chapter 9, Test C

1. 5
 2. $\frac{4}{5}$
 3. $5x^4y$
 4. $3x^3\sqrt{3xy} \quad 3x^2\sqrt{3xy}$
 5. $7\sqrt{2} - 3\sqrt{2} + 3\sqrt{2} = 7\sqrt{2}$
 6. $3a\sqrt{3} + 4a\sqrt{3} + 2a\sqrt{3} = 9a\sqrt{3}$
 7. $3x\sqrt{2}$
 8. $\sqrt{81} - \sqrt{18} = 9 - 3\sqrt{2}$
 9. $4 + 6\sqrt{2} + 6\sqrt{2} + (9)(2) = 22 + 12\sqrt{2}$
 10. $(12)(3) + 18\sqrt{3} - 20\sqrt{3} - 30 = 6 - 2\sqrt{3}$
 11. $\frac{\sqrt{3}}{3}$
 12. $\sqrt{\frac{12}{2}} = \sqrt{6}$
 13. $\frac{3(\sqrt{2}+3)}{2-9} = -\frac{3(\sqrt{2}+3)}{7}$
 14. $\frac{(2\sqrt{3}-\sqrt{2})(3\sqrt{3}-4\sqrt{2})}{(3\sqrt{3}+4\sqrt{2})(3\sqrt{3}-4\sqrt{2})} = \frac{(2\sqrt{3}-\sqrt{2})(3\sqrt{3}-4\sqrt{2})}{9(3)-16(2)} = \frac{(2\sqrt{3}-\sqrt{2})(3\sqrt{3}-4\sqrt{2})}{-5}$
- Optional: If you multiply out the numerator, your answer will be $\frac{26-11\sqrt{6}}{-5} = \frac{11\sqrt{6}-26}{5}$
15. Skip
 16. Skip
 17. Skip
 18. $2x + 9 = 25, 2x = 16, x = 8$
 19. Skip
 20. $y = \frac{k}{x}, 12 = \frac{k}{3}, (12)(3) = k, k = 36$. When $x = 6, y = \frac{k}{6} = \frac{36}{6} = 6$