

Answer Key

Challenge: Skills and Applications

1. k^{n+3} 2. x^{6n+2} 3. y^{21m} 4. k^{12mn}
5. $x^{6n}y^{2mn}$ 6. $x^{36mn+7}y^{54mn}$ 7. a^2b 8. 2
9. 25, 49 10. 133, 343 11. 256, 256
12. 2, 128 13. 8, 8 14. 54, 216
15. 100,000; 100,000 16. 11, 11
17. true only if (1) $a = 0$, $b = 0$, or both or
(2) $n = 1$ 18. $2^8 \cdot 4^{12}$ 19. 2^{32}