

COMPOSITION OF FUNCTIONS PRACTICE ANSWERS

- |                                 |                                     |  |                    |                  |
|---------------------------------|-------------------------------------|--|--------------------|------------------|
| 1. $2(3x) + 5$                  | 2. $3(2x + 5)$                      | 3. $3(x^2 - 4)$                          |                    |                  |
| 4. $(3x)^2 - 4$                 | 5. $2(x^2 - 4) + 5$                 | 6. $(2x + 5)^2 - 4$                      |                    |                  |
| 7. $2(2x + 5) + 5$              | 8. $3(3x)$                          | 9. $(x^2 - 4)^2 - 4$                     |                    |                  |
| 10. $(2x^2 + 9x)^3$             | 11. $2(x^3)^2 + 9(x^3)$             | 12. $2(3x - 1)^2 + 9(3x - 1)$            |                    |                  |
| 13. $3(2x^2 + 9x) - 1$          | 14. $(3x - 1)^3$                    | 15. $3(x^3) - 1$                         |                    |                  |
| 16. $(x^3)^3$                   | 17. $2(2x^2 + 9x)^2 + 9(2x^2 + 9x)$ | 18. $3(3x - 1) - 1$                      |                    |                  |
| 19. $\sqrt{(x^4 + 5) - 2}$      | 20. $(\sqrt{x - 2})^4 + 5$          | 21. $(5x - 2)^4 + 5$                     |                    |                  |
| 22. $5(x^4 + 5) - 2$            | 23. $\sqrt{(5x - 2) - 2}$           | 24. $5(\sqrt{x - 2}) - 2$                |                    |                  |
| 25. $\sqrt{(\sqrt{x - 2}) - 2}$ | 26. $(x^4 + 5)^4 + 5$               | 27. $5(5x - 2) - 2$                      |                    |                  |
| 28. $((\frac{1}{x}) + 1)^2$     | 29. $((\frac{1}{x})^2) + 1$         | 30. $\frac{1}{((x^2)+1)}$                |                    |                  |
| 31. $((x + 1)^2) + 1$           | 32. $((\frac{1}{x}) + 1) + 1$       | 33. $((x^2)^2)^2$                        |                    |                  |
| 34. 9                           | 35. $\sqrt{8}$                      | 36. $\sqrt{34}$                          | 37. 17             | 38. $29^2 = 841$ |
| 39. 11                          | 40. 16                              | 41. $\sqrt{3}$                           | 42. 35             |                  |
| 43. 22                          | 44. 7                               | 45. $(\frac{5}{2})^2 + 7 = \frac{53}{4}$ | 46. 5              | 47. 6            |
| 48. $\frac{9}{2}$               | 49. 20                              | 50. 536                                  | 51. $\frac{13}{4}$ |                  |