

## ANSWER KEY

- |              |              |              |              |
|--------------|--------------|--------------|--------------|
| 1. <b>A</b>  | 16. <b>B</b> | 31. <b>A</b> | 46. <b>C</b> |
| 2. <b>C</b>  | 17. <b>A</b> | 32. <b>C</b> | 47. <b>B</b> |
| 3. <b>A</b>  | 18. <b>D</b> | 33. <b>A</b> | 48. <b>C</b> |
| 4. <b>D</b>  | 19. <b>A</b> | 34. <b>C</b> | 49. <b>A</b> |
| 5. <b>B</b>  | 20. <b>C</b> | 35. <b>D</b> | 50. <b>D</b> |
| 6. <b>B</b>  | 21. <b>A</b> | 36. <b>C</b> | 51. <b>C</b> |
| 7. <b>D</b>  | 22. <b>A</b> | 37. <b>A</b> | 52. <b>D</b> |
| 8. <b>C</b>  | 23. <b>D</b> | 38. <b>D</b> | 53. <b>D</b> |
| 9. <b>C</b>  | 24. <b>B</b> | 39. <b>B</b> | 54. <b>A</b> |
| 10. <b>B</b> | 25. <b>C</b> | 40. <b>C</b> | 55. <b>C</b> |
| 11. <b>D</b> | 26. <b>A</b> | 41. <b>B</b> | 56. <b>D</b> |
| 12. <b>C</b> | 27. <b>D</b> | 42. <b>B</b> | 57. <b>B</b> |
| 13. <b>C</b> | 28. <b>A</b> | 43. <b>A</b> | 58. <b>A</b> |
| 14. <b>B</b> | 29. <b>C</b> | 44. <b>C</b> |              |
| 15. <b>B</b> | 30. <b>B</b> | 45. <b>D</b> |              |

## ANSWERS EXPLAINED

1. **(A)** When tracing an algorithm, using a trace table makes keeping track of your variables easier. Notice the display is  $c$ , then  $a$ , and then  $b$ . Don't assume the order is always  $a$ ,  $b$ ,  $c$ . Always evaluate the right-hand side of the equation first, and then set the value to the variable on the left.

$a$	$b$	$c$	Output
13	17	2	2 14 17
14			

2. **(C)** When tracing an algorithm, using a trace table makes keeping track of your variables easier. Although  $a$  was initially set to 13, it is overwritten in the second line, setting  $a$  equal to 17. In the third line, 1 is added to  $a$ , setting it equal to 18.

$a$	Output
13	18
17	
18	