

## Answer Key

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|-------|-------|-------|-------|-------|
| 1. C  | 14. A | 27. E | 40. D | 53. A |
| 2. C  | 15. B | 28. C | 41. B | 54. D |
| 3. A  | 16. B | 29. A | 42. A | 55. D |
| 4. D  | 17. C | 30. A | 43. C | 56. D |
| 5. D  | 18. E | 31. E | 44. D | 57. B |
| 6. C  | 19. D | 32. B | 45. E | 58. C |
| 7. E  | 20. A | 33. A | 46. B | 59. D |
| 8. A  | 21. C | 34. E | 47. C | 60. E |
| 9. A  | 22. D | 35. C | 48. D |       |
| 10. D | 23. B | 36. A | 49. B |       |
| 11. D | 24. A | 37. C | 50. C |       |
| 12. C | 25. D | 38. E | 51. B |       |
| 13. D | 26. B | 39. B | 52. C |       |

## Answers Explained

## AREA

We give below, for each of Questions 1–17, a sketch of the region, and indicate a typical element of area. The area of the region is given by the definite integral. We exploit symmetry wherever possible.

1. (C)

