

ANSWER KEY

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|--------------|--------------|--------------|-----------------|
| 1. D | 19. C | 37. B | 55. C |
| 2. B | 20. A | 38. A | 56. C |
| 3. B | 21. A | 39. C | 57. C |
| 4. C | 22. C | 40. D | 58. B |
| 5. D | 23. D | 41. B | 59. B |
| 6. B | 24. A | 42. D | 60. C |
| 7. B | 25. B | 43. B | 61. A |
| 8. D | 26. A | 44. D | 62. C |
| 9. A | 27. B | 45. D | 63. B |
| 10. C | 28. D | 46. B | 64. B |
| 11. D | 29. B | 47. D | 65. B, C |
| 12. A | 30. B | 48. B | 66. A, C |
| 13. C | 31. C | 49. B | 67. A, C |
| 14. A | 32. C | 50. C | 68. A, D |
| 15. A | 33. C | 51. C | 69. C |
| 16. D | 34. B | 52. C | 70. A, D |
| 17. B | 35. D | 53. D | |
| 18. D | 36. A | 54. B | |

ANSWERS EXPLAINED

- (**D**) The program picks a random number from 1 to 10. If it displays **FALSE** when x is less than or equal to 9, the program will display **FALSE** 90% of the time. Therefore, the program will display **TRUE** the remaining 10% of the time.
 - The program picks a random number from 1 to 10. If it displays only **FALSE** when x is less than 1, the program would never display **FALSE**. (It displays **TRUE** 100% of the time.)
 - The program picks a random number from 1 to 10. If it displays **FALSE** when x is less than or equal to 1, program will display **FALSE** 10% of the time. (It displays **true** 90% of the time.)
 - The program picks a random number from 1 to 10. If it displays **FALSE** when x is less than 9, it will display **false** 80% of the time. (It displays **true** 20% of the time.)
- (**B**) To solve this problem, use the following trace:

$x = 6, y = 12, z = 24$ [The three variables are initialized at these values.]

If($12 \text{ MOD } 6 = 0$) [This is true, MOD is the remainder after dividing the first number by the second.]

This statement is true, so set x to the value of y .

$x = 12, y = 12, z = 24$

If($24 \text{ MOD } 12 = 0$) [true]

This statement is true, so z is set to the **current** value of x .

That leaves a final answer: $x = 12, y = 12, z = 12$.