**Trace 1**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Line number | Input Buffer | Person count | salestotal | PersonAge | Another person | Output buffer |
| 1. | - | - | x | x | x | - |
| 2. | - | - | - | x | x | - |
| 3. | - | - | - | - | x | - |
| 4. | - | - | - | - | - | - |
| 5. | - | 1 | - | - | - | - |
| 6. | - | 1 | 0 | - | - | - |
| 7. | - | 1 | 0 | - | Y | - |
| 8. | - | 1 | 0 | - | Y | - |
| 9. | - | 1 | 0 | - | Y | Person 1 |
| 10. | - | 1 | 0 | - | Y | “How old are you? “ |
| 11. | 24 | 1 | 0 | 24 | Y | - |
| 12. | - | 1 | 0 | 24 | Y | - |
| 13. | - | 1 | 30 | 24 | Y | - |
| 14. | - | 1 | 30 | 24 | Y | - |
| 15. | - | 1 | 30 | 24 | Y | - |
| 16. | - | 1 | 30 | 24 | Y | - |
| 17. | - | 1 | 30 | 24 | Y | - |
| 18. | - | 1 | 30 | 24 | Y | - |
| 19. | - | 1 | 30 | 24 | Y | “Another Person?” |
| 20. | N | 1 | 30 | 24 | N | - |
| 21. | - | 1 | 30 | 24 | N | - |
| 22. | - | 1 | 30 | 24 | N | - |
| 23.` | - | 1 | 30 | 24 | N | - |
| 24. | - | 1 | 30 | 24 | N | - |
| 25. | - | 1 | 30 | 24 | N | - |
| 26. | - | 1 | 30 | 24 | N | “Count “ 1 |
| 27. | - | 1 | 30 | 24 | N | “Total” 30 |

**Trace 2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Line number | Input Buffer | Person count | salestotal | personAge | Another person | Output buffer |
| 1. | - | - | x | x | x | - |
| 2. | - | - | - | x | x | - |
| 3. | - | - | - | - | x | - |
| 4. | - | - | - | - | - | - |
| 5. | - | 1 | - | - | - | - |
| 6. | - | 1 | 0 | - | - | - |
| 7. | - | 1 | 0 | - | Y | - |
| 8. | - | 1 | 0 | - | Y | - |
| 9. | - | 1 | 0 | - | Y | Person 1 |
| 10. | - | 1 | 0 | - | Y | “How old are you? “ |
| 11. | 14 | 1 | 0 | 14 | Y | - |
| 12. | - | 1 | 0 | 14 | Y | - |
| 13. | - | 1 | 15 | 14 | Y | - |
| 14. | - | 1 | 15 | 14 | Y | - |
| 15. | - | 1 | 15 | 14 | Y | - |
| 16. | - | 1 | 15 | 14 | Y | - |
| 17. | - | 1 | 15 | 14 | Y | - |
| 18. | - | 1 | 15 | 14 | Y | - |
| 19. | - | 1 | 15 | 14 | Y | “Another Person?” |
| 20. | Y | 1 | 15 | 14 | Y | - |
| 21. | - | 1 | 15 | 14 | Y | - |
| 22. | - | 2 | 15 | 14 | Y | - |
| 8. | - | 2 | 15 | 14 | Y | - |
| 9. | - | 2 | 15 | 14 | Y | Person 2 |
| 10. | - | 2 | 15 | 14 | Y | “How old are you? “ |
| 11. | 24 | 2 | 30 | 24 | Y | - |
| 12. | - | 2 | 30 | 24 | Y | - |
| 13. | - | 2 | 45 | 24 | Y | - |
| 14. | - | 2 | 45 | 24 | Y | - |
| 15. | - | 2 | 45 | 24 | Y | - |
| 16. | - | 2 | 45 | 24 | Y | - |
| 17. | - | 2 | 45 | 24 | Y | - |
| 18. | - | 2 | 45 | 24 | Y | - |
| 19. | - | 2 | 45 | 24 | Y | “Another Person?” |
| 20. | N | 2 | 45 | 24 | N | - |
| 21. | - | 2 | 45 | 24 | N | - |
| 22. | - | 2 | 45 | 24 | N | - |
| 23.` | - | 2 | 45 | 24 | N | - |
| 24. | - | 2 | 45 | 24 | N | - |
| 25. | - | 2 | 45 | 24 | N | - |
| 26. | - | 2 | 45 | 24 | N | “Count “ 2 |
| 27. | - | 2 | 45 | 24 | N | “Total” 45 |

**Trace 3**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Line number | Input Buffer | Person count | sales total | personage | Another person | Output buffer |
| 1. | - | - | x | x | x | - |
| 2. | - | - | - | x | x | - |
| 3. | - | - | - | - | x | - |
| 4. | - | - | - | - | - | - |
| 5. | - | 1 | - | - | - | - |
| 6. | - | 1 | 0 | - | - | - |
| 7. | - | 1 | 0 | - | Y | - |
| 8. | - | 1 | 0 | - | Y | - |
| 9. | - | 1 | 0 | - | Y | Person 1 |
| 10. | - | 1 | 0 | - | Y | “How old are you? “ |
| 11. | 15 | 1 | 0 | 15 | Y | - |
| 12. | - | 1 | 0 | 15 | Y | - |
| 13. | - | 1 | 15 | 15 | Y | - |
| 14. | - | 1 | 15 | 15 | Y | - |
| 15. | - | 1 | 15 | 15 | Y | - |
| 16. | - | 1 | 15 | 15 | Y | - |
| 17. | - | 1 | 15 | 15 | Y | - |
| 18. | - | 1 | 15 | 15 | Y | - |
| 19. | - | 1 | 15 | 15 | Y | “Another Person?” |
| 20. | W | 1 | 15 | 15 | Z | - |
| 19. | - | 1 | 15 | 15 | Y | “Another Person?” |
| 20. | N | 1 | 15 | 15 | N | - |
| 21. | - | 1 | 15 | 15 | N | - |
| 22. | - | 1 | 15 | 15 | N | - |
| 23.` | - | 1 | 15 | 15 | N | - |
| 24. | - | 1 | 15 | 15 | N | - |
| 25. | - | 1 | 15 | 15 | N | - |
| 26. | - | 1 | 15 | 15 | N | “Count “ 1 |
| 27. | - | 1 | 15 | 15 | N | “Total” 15 |