Tracing Algorithms

1. Complete the trace table for algorithm shown below. (4)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Start ← 1  End ← 4  FOR Index ← Start TO End  OUTPUT Index\*Index  ENDFOR | Start | End | Index | **Output** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

2. Complete the trace table for algorithm shown below. (3)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Count | Target | **Output** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

3. Complete the trace table for algorithm shown below. (5)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Answers ← [TRUE,TRUE,FALSE,FALSE,TRUE]  Responses ← [TRUE,FALSE,TRUE,FALSE,TRUE]  i ← 0  Score ← 0  Len ← LEN(Answers)  WHILE i < Len DO  IF Answers[i] = Responses[i] THEN  Score ← Score + 1  END IF  i ← i + 1  ENDWHILE | | | | |
| i | Score | Len | Answers[i] | Responses[i] |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |