**Dry Run / Trace Table – Algorithm Practice**

1. 1. 1. 4,6,8,10
      2. 4,6,8,10,12
   2. 1. X=2

WHILE X <> 10 DO  
 OUTPUT X

X = X + 2

IF X = 10

OUTPUT X

ENDWHILE

END END

* + 1. X=2

REPEAT

OUTPUT X

X = X + 2

UNTIL X > 10

* 1. The program would run forever as an infinite loop is created, as the value of X cannot change, so it can never be larger than or equal to 10, so will never satisfy the while loop.



|  |  |
| --- | --- |
| **TOTAL** | **K** |
| 10 |  |
| 13 | 3 |
| 18 | 5 |
| 19 | 1 |
| 21 | 2 |

The output is: 13,18,19,21,21

* 1. The variables used in this code are K and TOTAL.
  2. TOTAL = 10

DO

READ K

IF K >= 2 THEN

TOTAL = TOTAL + 2

ELSE

K = K \* K

TOTAL = TOTAL + K

ENDIF

PRINT TOTAL

WHILE K <> 2

PRINT TOTAL

END