1. A police officer is using a program to process recorded car speeds. The pseudocode for part of this program is shown in **Figure 2**.

SET Speeding TO 0

SET NotSpeeding TO 0

SET TotalReadings TO 0

RECEIVE Speed FROM (INTEGER) KEYBOARD

WHILE Speed<>-1

IF Speed>40 THEN

SET Speeding TO Speeding+1

ELSE

SET NotSpeeding TO NotSpeeding+1

RECEIVE Speed FROM (INTEGER) KEYBOARD 11 END WHILE

SEND Speeding TO DISPLAY

SEND NotSpeeding TO DISPLAY

# **Figure 2**

* 1. The values 42, 37, 40, -1 are used to test the program shown in **Figure 2**. Complete the table to show the value stored in the variables ‘Speeding’ **and**

‘NotSpeeding’ for each iteration of the program.

**(4)**

|  |  |  |
| --- | --- | --- |
| Speed | Speeding | NotSpeeding |
| 42 | / |  |
| 37 |  | / |
| 40 |  | / |
| -1 |  | / |

* 1. Give two lines of pseudocode that should be added to the end of the program (**Figure 2**) to output the total number of speed readings taken.

**(2)**

Line 14

TotalReadings = Speeding + NotSpeeding

Line 15

Print (“The total readings that have been measured is a total of”, TotalReadings)