6 A program monitors the speed of vehicles as they move around a large building site.

Each vehicle contains a sensor which reads an integer value that represents the speed of the vehicle. The value is expected to be in the range 0 to 60 inclusive.

The sensors cannot read values less than 0.

A program module has been written to validate the values read by the sensors.

(a) A test plan is needed to fully test the module.

Complete the table. The first line has been completed for you.

Assume the sensors generate only integer values.

Type of test data	Test data value	Expected outcome
normal	36	data item is accepted

[4]

(b) Each sensor used in the system has a unique sensor ID number in the range 1 to 50.

The program that is used to monitor the speed of each vehicle reads each sensor value every second and stores this value along with the sensor's unique ID into a global 2D array `Reading`

The global array `Reading` has been declared as follows:

```
DECLARE Reading : ARRAY[1:2000, 1:2] OF INTEGER
```

The array contains 4000 elements organised as 2000 rows and 2 columns.

Column 1 contains the sensor value, and column 2 contains the sensor ID.

When 2000 sensor readings have been taken, the array is full and the system stops taking any more sensor readings until the array has been processed.

A procedure `Sort()` is needed to sort the array into ascending order of sensor value using an efficient bubble sort algorithm.

Write **efficient** pseudocode for the procedure `Sort()`

[8]