



4.1.1 Local and Global Variables

- 1) State **one** difference between local and global variables and give **two** reasons why it is good practice to use local variables.

[3 marks]

Difference (1 mark)

- **Global** accessible to all parts of the program
//declared in main program block
//local variables declared in subroutine
//accessible only in the program block/subroutine in which it was declared;

Reason (max 2 marks)

- **Memory allocated to local variables can be reused when subroutine not in use;**
 - **Local variables only exist while the program block/subroutine is executing;**
 - **Using local variables makes subroutines self-contained;**
 - **Accept – prevents accidental changes;**
 - **Accept – easier debugging/maintenance;**
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- 2) There is a variable called Row in the subroutine SetUpBoard.
There is also a different variable called *Row* in the subroutine LoadGame.

Explain why these two different variables can have the same identifier.

[2 marks]

- **Because the scope of the two variables is different;**
 - **They are both local variables in different subroutines;**
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