**Program Presentation**

Including: layout and style, readability, adherence to coding expectations, general care and appearance.

Some subset of the following lines will be retained by the marker.

* Stage 1 initial allocation, +4.
* Stage 2 initial allocation, +2.
* Stage 3 initial allocation, +0.

*Deductions*

Some subset of the following lines will be retained by the marker. Marks in each section won't go below zero.

* use of magic numbers, -0.5;
* #defines not in upper case, -0.5;
* absence of function prototypes, -0.5;
* bad choice for function names, -0.5;
* bad choices for variable names, -0.5;
* inconsistent bracket placement, -0.5;
* inconsistent indentation, -0.5;
* excessive commenting, -0.5;
* insufficient commenting, -0.5;
* lack of whitespace (visual appeal), -0.5;
* lines >80 chars, -0.5;
* other stylistic issue (minor), -0.5;
* other stylistic issue (major), -1.0;

*Additions (included in total mark only if marks lost within this first section)*

* comment at end that says "algorithms are fun", +0.5;
* overall care and presentation, +0.5;

*Other Comments from Marker*

**Structure and Approach**

Including: decomposition in to functions, development of data structures and declaration of them at the appropriate locations, choice of parameters to functions, overall flow and high-level readability.

Some subset of the following lines will be retained by the marker.

* Stage 1 initial allocation, +2.
* Stage 2 initial allocation, +2.
* Stage 3 initial allocation, +1.

*Deductions*

Some subset of the following lines will be retained by the marker. Marks in each section won't go below zero.

* duplicate code segments, -0.5;
* global variables, -0.5;
* main program too long or too complex, -0.5;
* insufficient use of functions, -0.5;
* functions too long or too complex, -0.5;
* overly complex algorithmic approach, -1.0;
* unnecessary duplication/copying of data, -0.5;
* overly complex function argument lists, -0.5;
* other structural issue (minor), -0.5;
* other structural issue (major), -1.0;

*Other comments from marker*:

**Program Execution**

Including: compilation, execution on test data, output presentation and readability. Programs that do not compile in the test environment will lose all marks in this section. Be sure to verify your submission and **check the output** before you say "finished" to yourself.

Some subset of the following lines will be retained by the marker.

* Stage 1 initial allocation, +2.
* Stage 2 initial allocation, +1.
* Stage 3 initial allocation, +1.

*Deductions*

Some subset of the following lines will be retained by the marker. Marks in each section won't go below zero.

* failure to compile, -4.0;
* unnecessary warning messages in compilation, -1.0;
* incorrect Stage 1 layout or values error in any test, -0.5;
* different Stage 1 layout or values error in any test, -0.5;
* incorrect Stage 2 layout or values error in any test, -0.5;
* different Stage 2 layout or values error in any test, -0.5;
* incorrect Stage 3 layout or values error in any test, -0.5;
* different Stage 3 layout or values error in any test, -0.5;

**Late Penalty**

If you make a late submission without having prior agreement from Alistair, one of these lines might also be retained. Overall marks won't go below zero.

* one day late, -2.0;
* two days late, -4.0;
* three days late, -6.0;
* four days late, -8.0;
* five days late, -10.0;

**Academic Honesty**

The following deductions will be applied to your overall mark if necessary. Overall marks won't go below zero.

* no (or incomplete) Authorship Declaration at top of program, -3.0;
* significant overlap detected with another submission, -7.5;
* use of external code without attribution (minor), -1.0;
* use of external code without attribution (major), -7.5;