

W3: Quadratic formula (with error handling)

Take your code from Assignment W2. Copy it into a new file, called *quadratic-errors.cpp*. Extend it in the following ways:

1. Check the user input. If the input does not match three floating-point numbers, output an error message and do not start the calculation. For this purpose, write a function that reads a *double* from *cin* and returns it, unless an error occurred while reading. In the latter case, the function should *throw a runtime_error*.
 - Your function should also *throw a runtime_error* in case there is too few input (less than three floating point numbers).
 - When running your program from the command line, you can simulate an early end of input by typing *CTRL-D* at the start of an input line.
2. Check whether $a=0$. If so, throw a *runtime_error*.
3. In *main*, catch the *runtime_error* and print a message about the error that has occurred.

The error messages should look like this:

```
An error occurred: Malformed user input
```

```
An error occurred: a must not be zero
```

Solve alone or in pairs

You can choose to solve a warm-up assignment all by yourself. But you may also choose to do it together with another student from the group. If so, one student must create a group (in CodeGrade) and the other student must join it.