

## 3.1: Quadratic Formula (with error handling)

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**Due** 23 Sep 2019 by 23:59    **Points** 0    **Submitting** an external tool

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Take your code from Assignment 2.4. 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
```

This tool needs to be loaded in a new browser window

Load 3.1: Quadratic Formula (with error handling) in a new window

