

- **Q1: Write the pseudocode for what you would do to prevent these errors from occurring in your program, i.e. handle the errors before they cause a logic or runtime error?**

- **Arithmetic Overflow**

This one is hard. Assuming you know the types of variables at play (long, int, double, etc) then you could check the result against the MAX_VALUE.

Let's assume they are ints.

Int a;

Int b;

<stuff happens to change a and b>

Int c = a*b

If ($c < \text{absolute value of } a$ or $c < \text{absolute value of } b$), then it overflowed. C wrapped around and became smaller than one of the operands.

- **Divide by zero**

Assume variables a and b.

Try:

result = a / b

Catch (ArithmeticException):

print "you can't do that!"