

A1 : C++ and Shell Warm-up

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a) This is the command I would use to make my program "inch_to_cm" convert numbers written in file "in" and write them to file "out":

```
./inch_to_cm < ./in > ./out
```

b) This is the output:

0.29999999999999999988897769753748

In binary this number would require infinite amount of digits to represent, so when we enter 0.3 computer get the closest binary number. If I multiply that number by some power of two I would get an integer number. So "0.3*256*256*256*256*256*256*64" is exactly:

5404319552844595.000000000000000000000000000000