



Practice 11

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Robot position

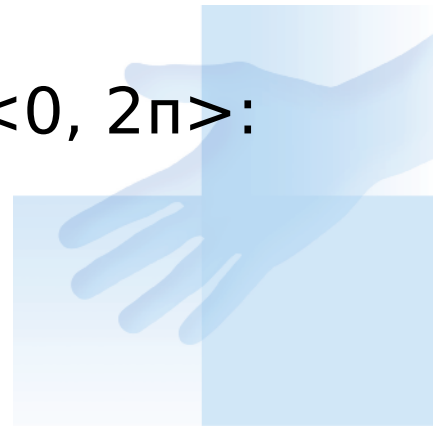
N positions from the beginning
// check for mistake any entry

initial:

x, y: position, phi: rotation angle, delta: time
between iterations, v: velocity, omega: turns angle
// double, one line: 12 15 0 1 5 0.12

output: N robots positions
// loop, 2 decimals, double data type

```
//#define _USE_MATH_DEFINES  
// use cmath for  $\pi$ ,  $\phi$  angle normalisation  $\langle 0, 2\pi \rangle$ :  
phi = modf(phi, 2 * M_PI);
```







File with integers

funcion's interface and its call

```
int evenOdd (const char *srcFileName,  
             const char *dstFileName )
```

entry: (symbolic)

```
1 2 3 4 5 6 <EOF>
```

hints:

read input file twice, process even numbers
at first reading, then

```
input.close() a input.open()
```

and read from the beginning again

and process odd numbers at this second
reading

return -1 for error, 0 otherwise





Conditional Translation 1

```
#ifndef __PROGTEST__
#include <iostream>
#include <cstdlib>
#endif /* __PROGTEST__ */
int evenOdd (const char * srcFileName,
             const char * dstFileName) {
    /* implementation */
}
```





Conditional Translation 2

```
#ifndef __PROGTEST__
int main () {
    evenOdd("in.txt", "out.txt");
    /* your tests */
    return 0;
}
#endif /* __PROGTEST__ */
```





Návod:

