

# INTRO.TO PROGRAMMING MID II

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## What the `#include` does?

- The `#include` preprocessor directive causes the compiler to replace that line with the entire text of the contents of the named source file (if included in quotes: `"`) or named header (if included in angle brackets: `<>`).

## What the `#define` does?

- Set “type-less” read-only variables
- `#ifdef` & `#ifndef`
  - The header guard
- The macro

```
#ifndef COUNT_H
#define COUNT_H
#define MAXN 1000
#define FOR(i,l,r) for(int i=l;i<=r;i++)
// ...
#endif
```



## A good sample

```
double rp(unsigned int seed);
int main() {
    /*
     * never write the whole program in the main function
     */
    int luck;
    scanf("%d", &luck);
    printf("%lf\n", rp((unsigned int)luck));
    return 0;
}

double rp(unsigned int seed) {
    srand(seed);
    double myrp = 0;
    for(int i=0; i<10; i++) {
        myrp += (double)(rand()%1000)/999;
    }
    return myrp;
}
```

# Something Bad

- Global variables.
- Forget to close file.
- Forget to release memory
- No indentation
- Any instruction prohibited in the syllabus

## Some last tips

- Review the homework & project.
- Plan your time wisely.



GOOD LUCK!