

Header Files

```
a.h
#ifndef A_H
#define A_H
struct A{
    int x;
};
#endif
```

```
b.h
#ifndef B_H
#define B_H
#include "A.h"
void func(struct A);
#endif
```

Source Files

```
main.cpp
#include "A.h"
#include "B.h"
int main(void){
    struct A x;
    func(x);
    return 0;
}
```

```
b.cpp
#include "A.h"
#include "B.h"
void func(struct A){
    .....
}
```

Preprocessed Source Files

```
#include "A.h"
#ifndef A_H
#define A_H
struct A{
    int x;
};
#endif

#include "B.h"
#ifndef A_H
#define A_H
struct A{
    int x;
};
#endif
void func(struct A);

int main(void){
    struct A x;
    func(x);
    return 0;
}
```

include a.h

contents and define
macro A_H as this is
the first time

ignore contents of
a.h as macro A_H
has been defined
before