

Bit Field (1B)

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a1.c

```
#include <stdio.h>

struct A1 {                // 1-byte
    unsigned char a:4;
    unsigned char b:4;
};

struct A2 {                // 2-byte
    unsigned short a:8;
    unsigned short b:8;
};

struct A3 {                // 4-byte
    unsigned int a:16;
    unsigned int b:16;
};

struct A4 {                // 8-byte
    unsigned long a:32;
    unsigned long b:32;
};

struct A5 {                // 16-byte
    unsigned long long a:64;
    unsigned long long b:64;
};
```

a2.c

```
#include

struct B1 {          // 4-byte
    unsigned a:4;
    unsigned b:4;
};

struct B2 {          // 4-byte
    unsigned a:8;
    unsigned b:8;
};

struct B3 {          // 4-byte
    unsigned a:16;
    unsigned b:16;
};

struct B4 {          // 8-byte
    unsigned a:32;
    unsigned b:32;
};

struct B5 {          // 16-byte
    unsigned long a:64;
    unsigned long b:64;
};
```

a3.c

```
struct C1 {                // 8-byte
    unsigned a:4;
    unsigned :0;
    unsigned b:4;
};

struct C2 {                // 8-byte
    unsigned a:8;
    unsigned :0;
    unsigned b:8;
};

struct C3 {                // 8-byte
    unsigned a:16;
    unsigned :0;
    unsigned b:16;
};

struct C4 {                // 8-byte
    unsigned a:32;
    unsigned :0;
    unsigned b:32;
};

struct C5 {                // 16-byte
    unsigned long a:64;
    unsigned :0;
    unsigned long b:64;
};
```

