Union (1B)

a1.c

```
#include <stdio.h>

int main(void) {
  int             a;
  int *           p;
  unsigned char * q;

  a = 0xffeeddcc;
  p = &a;
  q = (unsigned char *) &a;

  printf("&a= %p  a= 0x%08X \n", &a, a);
  printf("&p= %p  p= %p *p= 0x%08X \n", &p, p, *p);
  printf("&q= %p  q= %p *q= 0x%02X \n", &q, q, *q);


  printf("(q+0)=%p *(q+0)=0x%02X \n", (q+0), *(q+0));
  printf("(q+1)=%p *(q+1)=0x%02X \n", (q+1), *(q+1));
  printf("(q+2)=%p *(q+2)=0x%02X \n", (q+2), *(q+2));
  printf("(q+3)=%p *(q+3)=0x%02X \n", (q+3), *(q+3));


}
```

a2.c

```
#include <stdio.h>

union aaa {
  int           a;
  unsigned char c;
};


int main(void) {
  union aaa U;

  U.a = 0xffeeddcc;
  printf("U.a= 0x%X \n", U.a);
  printf("U.c= 0x%X \n", U.c);

  U.c = 0xAA;
  printf("U.a= 0x%X \n", U.a);
  printf("U.c= 0x%X \n", U.c);

}
```

a3.c

```
#include <stdio.h>

union aaa {
  int           a;
  unsigned char c[4];
};


int main(void) {
  union aaa U;

  U.a = 0xffeeddcc;
  printf("U.a= 0x%X \n", U.a);
  printf("U.c[0]= 0x%X \n", U.c[0]); // least significant byte
  printf("U.c[1]= 0x%X \n", U.c[1]);
  printf("U.c[2]= 0x%X \n", U.c[2]);
  printf("U.c[3]= 0x%X \n", U.c[3]); // most significant byte

}
```