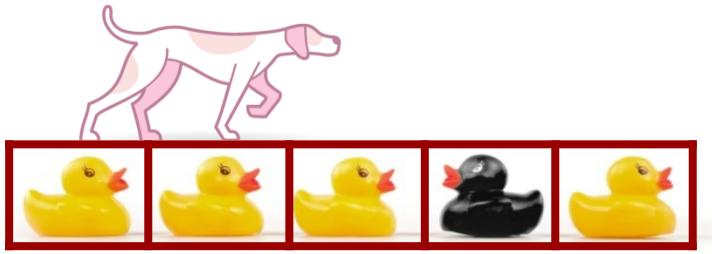
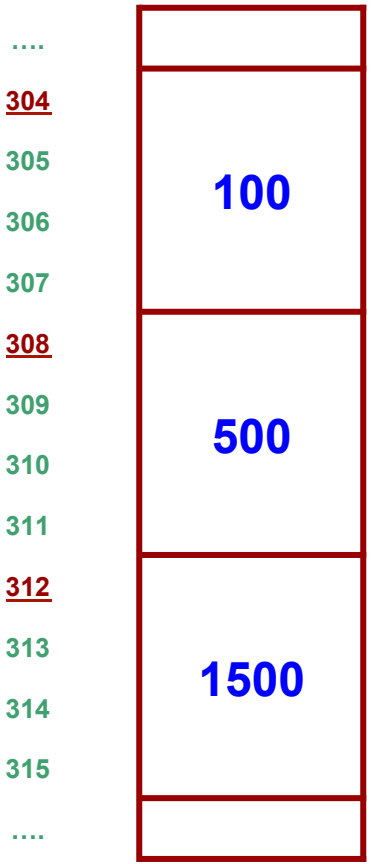
Pointer & Dizi



Suhap SAHIN
Onur GÖK

Diziler




```
int dizi_b[3] = {100, 500, 1500};
```

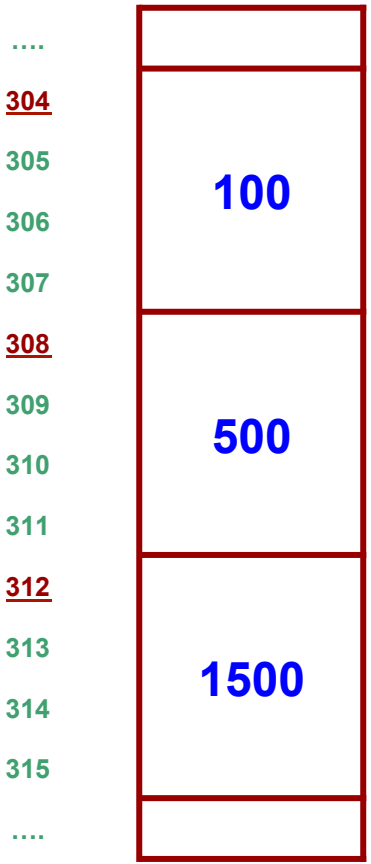
sizeof(int) = 4

3 * **sizeof**(int)

= 3 * 4

= 12 byte

Diziler




```
int dizi_b[3] = {100, 500, 1500};
```

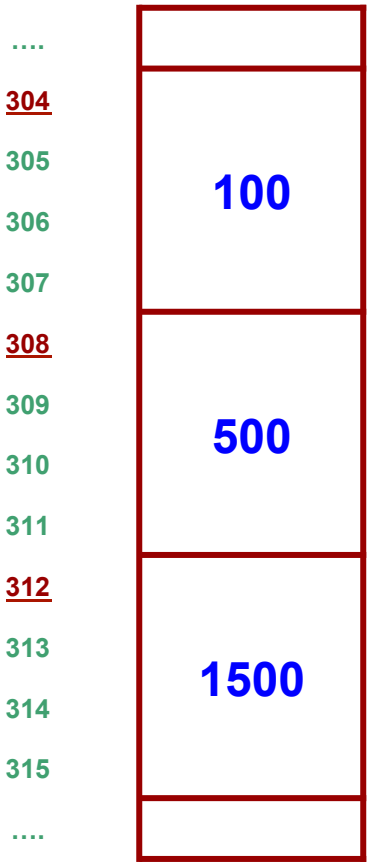
dizi_b[2]

= 304 + 2 * **sizeof**(int)

= 304 + 2 * 4

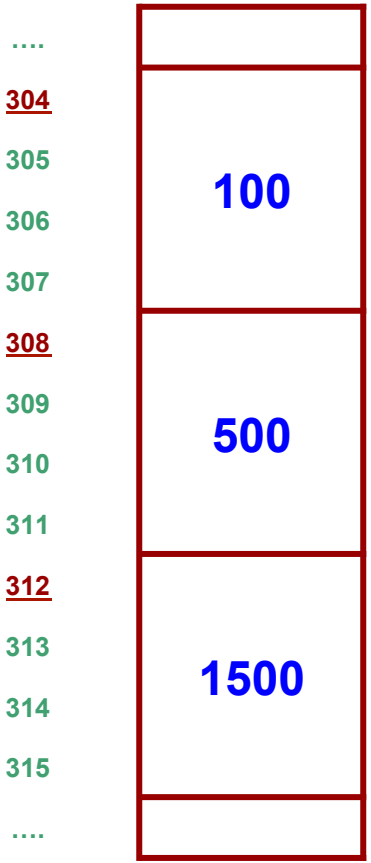
= 312

Diziler




```
int dizi_b[3] = {100, 500, 1500};

printf("%c", dizi_b[2]);
    1500

printf("%d", &dizi_b[2]);
    312
```

Diziler & isaretçiler




```
int dizi_b[3] = {100, 500, 1500};
```

dizi_b + 1

= 304 + 1 * **sizeof**(int)

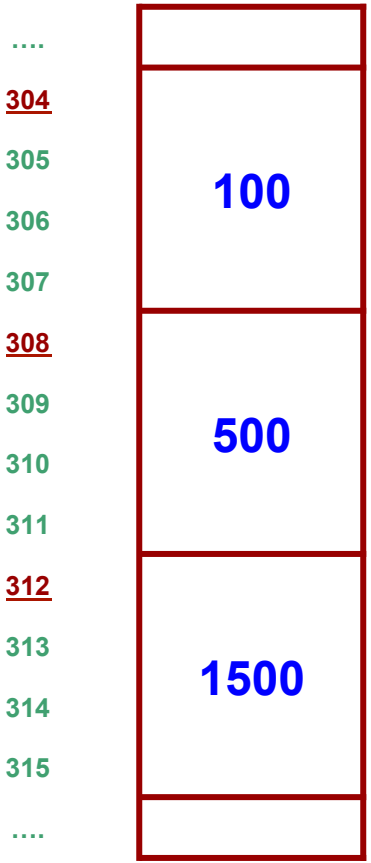
= 304 + 1 * 4

= 308

```
printf("%d\n", dizi_b+1);
```

308

Diziler & isaretçiler

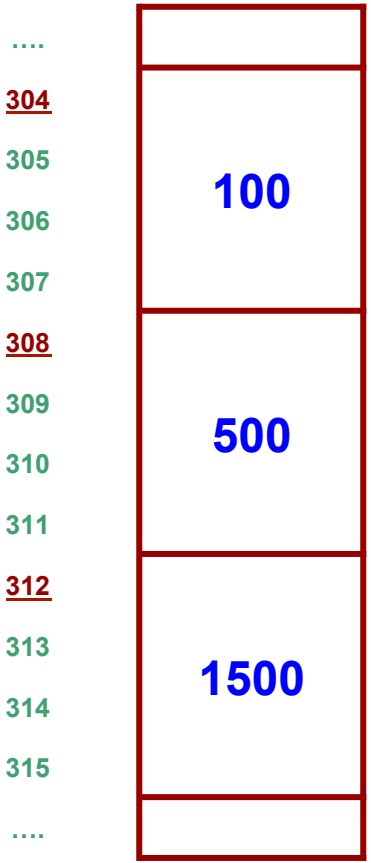



```
int dizi_b[3] = {100, 500, 1500};
```

```
printf("%d\n", *(dizi_b+1));
```

500

Diziler & isaretçiler




```
int dizi_b[3] = {100, 500, 1500};
```

x: tamsayi

```
dizi[x] == *(dizi + x);
```

```
&dizi[x] == (dizi + x);
```

sizeof

```c
#include <stdio.h>
int main() {
printf("sizeof(short) : %d\n", sizeof(short));
printf("sizeof(int) : %d\n", sizeof(int));
printf("sizeof(long) : %d\n", sizeof(long));
printf("sizeof(char) : %d\n",sizeof(char));
printf("sizeof(char) : %d\n", sizeof(float));
printf("sizeof(char) : %d\n", sizeof(double));
printf("sizeof(char) : %d\n", sizeof(long double));
return 0;
}
```

sizeof

```c
#include <stdio.h>
int main() {
        short a;
        int b;
        long c;
        char d;
        printf("sizeof(a) : %d\n", sizeof(a));
        printf("sizeof(b) : %d\n", sizeof(b));
        printf("sizeof(c) : %d\n", sizeof(c));
        printf("sizeof(d) : %d\n", sizeof(d));
        return 0;
}
```

sizeof

```c
#include <stdio.h>
int main() {
        int dizi[5];
        int *ptr;
        printf("sizeof(dizi) : %d\n", sizeof(dizi));
        printf("sizeof(ptr) : %d\n", sizeof(ptr));
        return 0;
}
```

isaretci aritmatigi

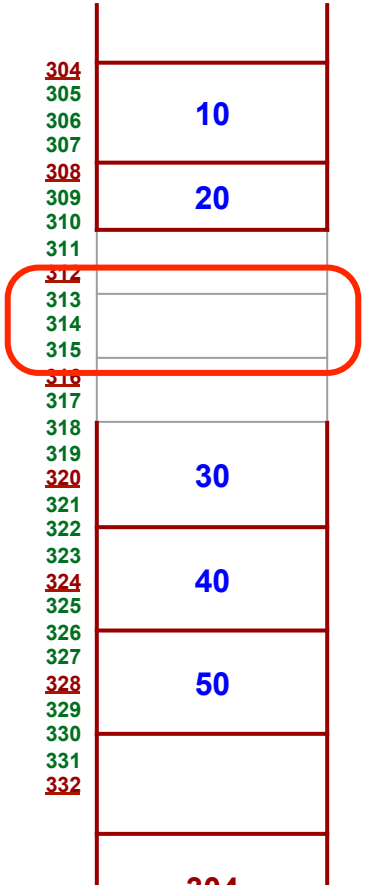
```c
#include <stdio.h>
int main() {
    int a=5;
    int * a_ptr = &a;

    printf("a'nin baslangictaki adres degeri: %u\n\n", a_ptr);

    a_ptr++;
    printf("1 eklendikten sonra adres degeri: %u\n\n", a_ptr);

    a_ptr -= 2;
    printf("2 cikarildiktan sonra adres degeri: %u\n\n", a_ptr);

    a_ptr--;
    printf("1 cikarildiktan sonra adres degeri: %u\n\n", a_ptr);

    printf("a'nin 2 sonraki adresi: %u\n", (&a) +2);
    printf("a'nin 1 onceki adresi: %u\n", (&a) -1);

    return 0;
}
```

312 +2

312 -1

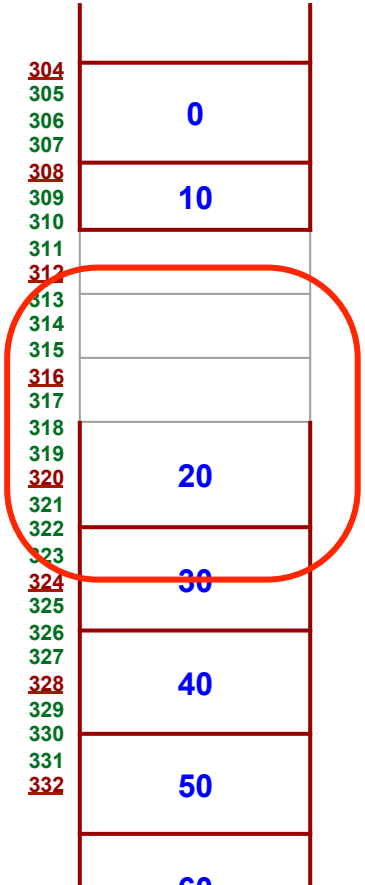
isaretci & diziler

```c
#include <stdio.h>
int main() {
int i;
int a[5] = {10, 20, 30, 40, 50};
                int *aptr;
                aptr = a;
                // aptr = &a[0]
                // dizinin 2. elemanini yazdiriyoruz
                printf("a[2] : %d\n", a[2]);
                // pointer'in 2 sonraki adresinin degerini yazdiriyoruz
                printf("*(aptr+2) : %d\n", *(aptr+2));
                printf("\n");
                // pointer dizi yazim sekliyle kullanilabilir
                printf("aptr[2] : %d\n", aptr[2]);
                // dizi pointer yazim sekliyle kullanilabilir
                printf("*(a+2) : %d\n", *(a+2));
                printf("\n");
                // dizinin 2. indexteki elemaninin adresi
                printf("&a[2] : %d\n", &a[2]);
                printf("a+2 : %d\n", a+2);
                return 0;
}
```



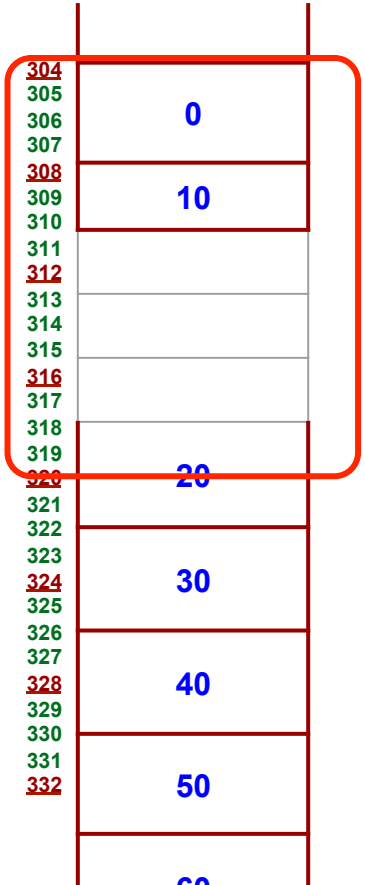
isaretci & diziler

```c
#include <stdio.h>
void ekrana_yaz(int d[], int N) {
        int i;
        for (i = 0 ; i < N ; i++)
                printf("%d\n", d[i]);
        printf("\n");
}
void ekrana_yaz_2(int *d, int N) {
        int i;
        for (i = 0 ; i < N ; i++)
                printf("%d\n", d[i]);
        printf("\n");
}
int main() {
        int dizi[7] = {0, 10, 20, 30, 40, 50, 60};
        ekrana_yaz(dizi, 2);
        ekrana_yaz_2(dizi, 2);
        ekrana_yaz(&dizi[2], 3);
        ekrana_yaz(dizi+2, 3);
        return 0;
}
```



isaretci & diziler

```c
#include <stdio.h>
void ekrana_yaz_3(int *baslangic, int *son) {
                int * p;
    for (p = baslangic ; p <=  son ; p++)
        printf("%d\n", *p);
    printf("\n");
}

int main() {
                int dizi[7] = {0, 10, 20, 30, 40, 50, 60};
                ekrana_yaz_3(dizi, &dizi[5]);
                ekrana_yaz_3(dizi, &dizi[3]);
                ekrana_yaz_3(dizi, dizi+3);
          return 0;
}
```



Sorular