

## Funzione e puntatori:

double A = 12, B = 6;

double X, Y;

ellisse(A, B, &X, &Y);

double \*px, \*py; // px, py sono puntatori

px = &X; py = &Y;

ellisse(A, B, px, py);

double punto[2];

ellisse(A, B, &punto[0], &punto[1]);

ellisse(A, B, punto, punto + 1);

punto: Puntatore a punto[0]

punto  $\equiv$  &punto[0]

punto + 1  $\equiv$  &punto[1]

Avendo visto tipi di chiamate  
alla funzione

Dichiarazione: void ellisse(double, double, double\*, double\*);

Implementazione:

void ellisse(double a, double b, double\* x, double\* y) {

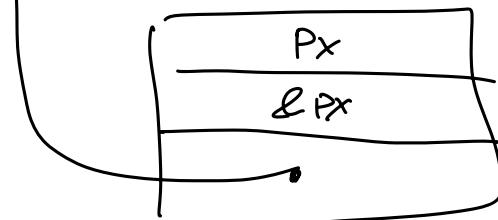
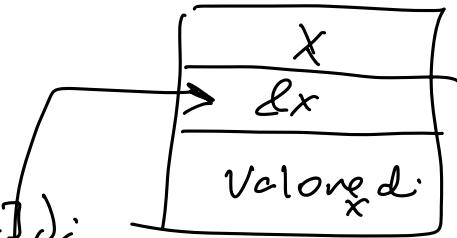
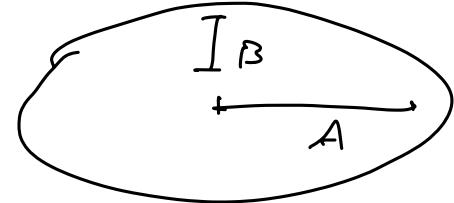
do {

Dereferenziare  
puntatore x

\*x = uniforme(-a, a);

\*y = uniforme(-b, b);

} while((\*x \* \*x) / (a \* a) + (\*y \* \*y) / (b \* b) >= 1);



$$Px = \&X;$$

punto[0]	punto[1]
0x123456	0x123457

Notazione vettoriale:

double punto[2];

ellisse(A, B, punto); problema: ellisse non ha lunghezza di punto.

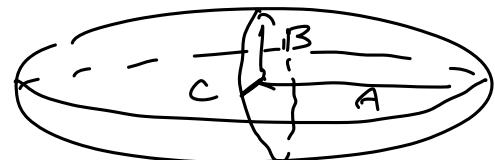
## Soluzione A

double punto(2);

ellisse(A, B, punto, 2);

~~double punto2[3];~~

~~ellisse(A, B, punto, 3);~~



$$\frac{x^2}{A^2} + \frac{y^2}{B^2} + \frac{z^2}{C^2} = 1$$

Dichiarazioni:

void ellisse(double, double, double\*, int);

Implementazione:

void ellisse(double A, double B, double\* P, int N) {

do {  
 P[0] = uniform(-A, A);  
 P[1] = uniform(-B, B);

} while ( );

do {  
 \*P = uniform(-A, A);  
 \*(P+1) = uniform(-B, B);

5

```
double dati[10] = { 1, -2, 3, 8.4, -5.9, 9.1, -  
                    - - - };
```

```
double m = media(dati, 10);
```

```
m = media(dati, 3);
```

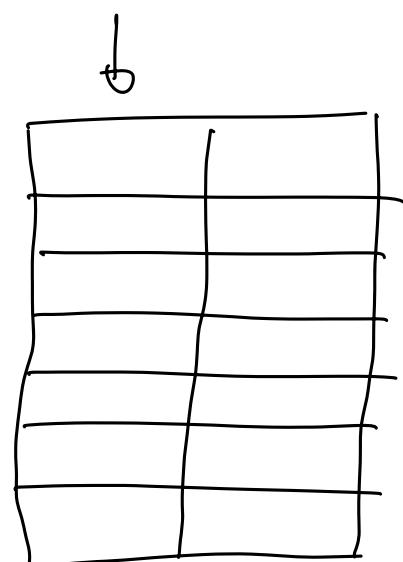
Dichiarazione:

```
double media(double*, int);
```

Implementazione:

```
double media(double* v, int n) {  
    double sum = 0;  
    int i;  
    for(i=0; i < n; i++) {  
        sum += v[i];  
        sum += *(v+i); } } } equivalent  
    }  
    sum /= n;  
    return sum;  
}
```

```
double mat[10][2]
```

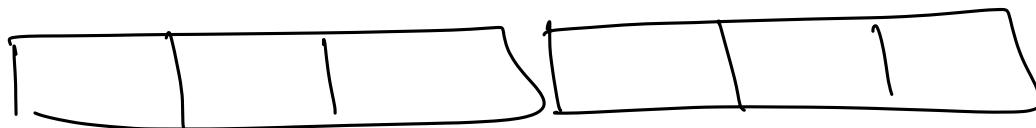


double a[2][3];

$$0x018 + 0x8 = 0x020$$

0x010	0x018	0x020
0x028	0x030	0x038

a[1][2]



\*(\*(a+1)+2)

double mat[10][2]  
double a + i + j \* 3  
media delle nise + ← setting nise : i = 6

media( \*(mat+6), 2 )

$$\underline{y} = \underline{\underline{A}} \cdot \underline{x} + \underline{c} \quad n \times n$$

$$\underline{y} - \underline{c} = \underline{\underline{A}} \cdot \underline{x}$$

$$\underline{\underline{A}}^{-1} \cdot (\underline{y} - \underline{c}) = \underline{\underline{A}}^{-1} \underline{\underline{A}} \cdot \underline{x}$$

$$\begin{pmatrix} \circ & \circ \\ \circ & \circ \end{pmatrix} \rightarrow \begin{pmatrix} \circ & \circ \\ 0 & \circ \end{pmatrix}$$