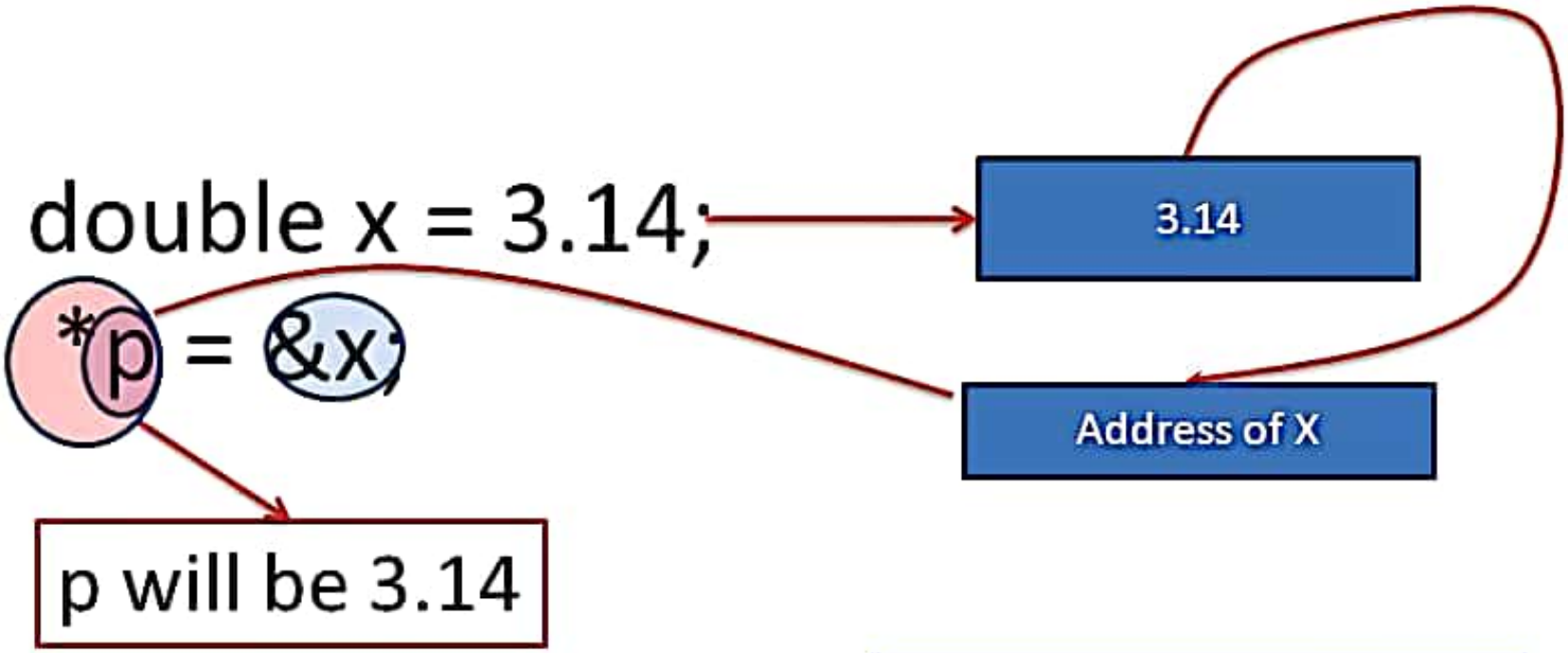
Pointers to Referencing & Derefrencing

```
int x, *y, z, *q;
x = 3;
y = &x;                         // y points to x

printf("%d\n", x);              // outputs 3
printf("%d\n", y);              // outputs x's address, will seem like a random number to us
printf("%d\n", *y);             // outputs what y points to, or x (3)
printf("%d\n", *y+1);           // outputs 4 (print out what y points to + 1)
printf("%d\n", *(y+1));         // this outputs the item after x in memory – what is it?
```

POINTERS



Set pointer value directly
double x; *p = &x;
*p = 3.14;
Make sure pointer has been set to an allocated memory region

Setting pointer value to null
int *p = 0; int *p = NULL;

printf("%x",p);
Prints a hexadecimal number – the address that **p** points to

For a pointer p, ++p and p++ are both equivalent to p + 1