



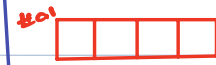
objects in memory

```
int main() {  
    int n = 10;  
    int y = 20;  
    int[] arr = new int[4]  
    Student s = new Student();  
}
```

main {

s = #02
arr = #01
y = 20
n = 10

heap



n = 0
y = 0

```
public class Student {
```

```
    int n;
```

```
    int y;  
}
```

```
int main() {  
    int n = 10;  
    int y = 20;  
    swap(n, y);  
}
```

```
void swap(int n, int y) {  
    —  
    —  
    —  
    —  
}
```

swap {

y = 10
n = 20
temp = 10

main {

y = 20
n = 10



```
class Pair {
```

```
    int x;
```

```
    int y;
```

```
    Pair (int v1, int v2)
```

```
    {
```

```
        x = v1;
```

```
        y = v2;
```

```
    }
```

```
}
```

```
int main() {
```

```
    Pair p1 = new Pair(10, 20);
```

```
}
```

Swap

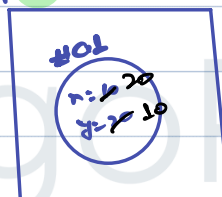
main

```
p1 = #01
```

```
temp = 10
```

```
p1 = #01
```

Heap



10 20

```
Swap (Pair p1) {
```

```
    int temp = p1.x;
```

```
    p1.x = p1.y;
```

```
    p1.y = temp;
```

```
}
```