classmate

Date ________

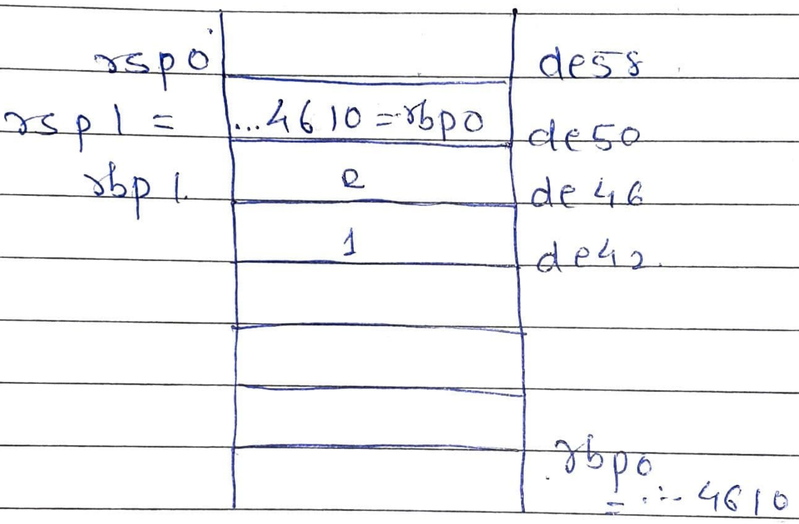
Page ________

Memory layout diagrams.

①

```
#include<stdio.h>
 int main()  {
   int u = 1;
   int b = 2 ;
   return 0;
}
```

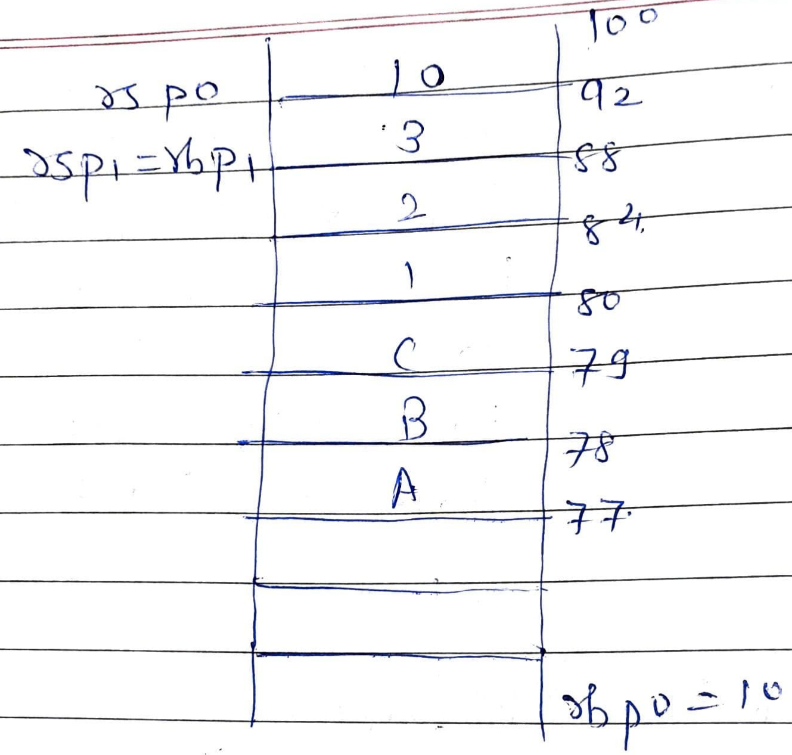
```
45fa <+0>: push  %rbp.
45fb <+1> : mov %rsp, %rbp
45fe <+4> : movl $0x1,-0x8(%rbp)
45f5 <+11> : movl $0x2,-0x4(%rbp).
460c <+18>: mov  $0x0, %eax
4611 <+23>: pop  %rbp
4612 <+24>: retq
```



②

```
#include<stdio.h>
int main()  {
    int i = 1;
    int j = 2 ;
    int k = 3 ;
   char ch1 = 'A';
   char ch2 = 'B';
   char ch3 = 'C';
   return 0;
}
```

```
05fa <+0>: push   %rbp
05fb <+1>: mov %rsp, %rbp
05fe <+4>: movl $0x1, -0xc(%rbp)
0605 <+11>: movl $0x2, -0x8(%rbp)
60c <+18>: movl $0x3, -0x4(%rbp)
613 <+25>: movl $0x41, -0xf(%rbp)
617 <+29>: movb $0x43, 0xe(%rbp)
61b <+33>: movb $0x43, -0xd(%rbp)
61f <+37>: mov $0x0, % eax
624 <+42>: pop  %rbp
625 <+43>: retq
```


rsp0
rsp1 = rbp1
100
10
92
3
88
2
84
1
80
C
79
B
78
A
77
rbp0 = 10