

### 3.1 Stack Frame Practice

```
int putChar(int c){
```

Draw the stack frame of this function below

Write the instructions needed to call this function in assembly. Pass the value in AX as int c

Write the prologue of this function and get the variable int c into AX

```
int printString(char *s){  
    int i = 0;
```

Draw the stack frame of this function below

Write the instructions needed to call this function in assembly. Pass the value in AX as char \*s

Write the prologue of this function and get the variable char \*s into SI. Initialize i to 0.

```
int drawDot(int x, int y);
```

Draw the stack frame of this function below

Write the instructions needed to call this function in assembly. Pass x = 10, y = 10

Write the prologue of this function and get the variable int y into AX and int x into BX.

```
int drawRect(int x0, int y0, int w, int h);  
int currX, currY;
```

Draw the stack frame of this function below

Write the instructions needed to call this function in assembly.  
Pass x0 = 10, y0 = 10, w = 20, h = 10

Write the prologue of this function and get the variable int x0 into AX and int y0 into BX. Initialize currX and currY to x0 and y0 respectively.

```
int plotLine(int x0, int y0, int x1, int y1){  
    int dx = x1 - x0;  
    int dy = y1 - y0;  
    int D = 2 * dy - dx;
```

Draw the stack frame of this function below

Write the instructions needed to call this function in assembly.  
Pass x0 = 10, y0 = 10, x1 = 20, y1 = 30

Write the prologue of this function and get the variable int x0 into AX and int y0 into BX.