

Name:.....

CS2213 Advanced Programming

Trace the following program, show how variables change in the memory, and give the output.

```
#include <stdio.h>
```

```
main()
```

```
{
```

```
    int x, y, z[3], *p1, *p2;
```

```
    p1 = &x;
```

```
    p2 = z;
```

```
    z[1] = 6;
```

```
    *p2++ = 5;
```

```
    *++p2 = 8;
```

```
    *p1 = p2 - p1;
```

```
    printf("%d %d %d \n",  
          p1, *p1, &p1);
```

```
    printf("%d %d %d \n",  
          p2, *p2, &p2);
```

```
    p2 = z + 1;
```

```
    printf("%d %d %d \n",  
          *p2, *p2+1, *(p2+1));
```

```
}
```

MEMORY

name	Add ress	Content/Value
x	12	
y	16	
z[0]	20	
z[1]	24	
z[2]	28	
p1	32	
p2	36	
...		
	100	
a	104	
b	108	
c	112	
d	116	
x	120	
y	124	
	128	

OUTPUT: