

1.

```
1 #include <stdio.h>
2 int main(){
3     char* ptr = "helloworld";//initialize pointer and point it to start
4     print(ptr + 4);//moves pointer forward one letter, output "elloworld"
5     return 0;
6 }
```
2.

```
1 #include <stdio.h>
2 int main(){
3     int * ptr; //creates pointer to integer
4     printf("%d",sizeof(ptr)); //output is 4, the size of an integer
5     return 0;
6 }
```
3.

```
1 #include <stdio.h>
2 int main(){
3     int* ptr = 2; //creates pointer to memory space 2
4     printf("%ld",sizeof(ptr)); //output is 4, the size of the pointer(int)
5     return 0;
6 }
```
4.

```
1 #include <stdio.h>
2 int main(){
3     char* ptr; //creates character pointer
4     char string[] = "learn C from class";//creates string
5     ptr = string; //points pointer to beginning to string
6     ptr += 6; //moves pointer 6 characters forward
7     printf("%s",ptr); //out is "C from class"
8     return 0;
9 }
```
5.

```
1 #include <stdio.h>
2 void function(char **);
3 int main(){
4     char* arr[] = {"ant","bat","cat","dog","egg","fly"};//create array if
    strings
5     function(arr);//pass pointer to beginning of array to function
6     return 0;
7 }
8 void function(char ** ptr){
9     char* ptr1;//creates character pointer (string)
10    ptr1 = (ptr += sizeof(int))[-2]; //shifts pointer 4 spots ahead in array
11                                     //then selects string 2 spots back
12                                     //points ptr1 to string
13    printf("%s \n", ptr1); //outputs "cat"
14 }
```