Program 1:

Redirection example 1 (from a file):

```
computer$ gcc redirection_one.c
(base) Computers-MacBook-Air:C computer$ ./a.out //not using redirection
hi //gets an input (from scanf)-I am manually inputting
hi //prints out an input(using printf)
there
there
im
im
giving
giving
eight
eight
examples
examples
right
right
now
now
computer$ gcc redirection_one.c
(base) Computers-MacBook-Air:C computer$ ./a.out < rainbow.txt//using
redirection
Rainbow //these values are coming from the file
Colors:
Red
Orange
Yellow
Green
Blue
Indigo
```

./a.out < rainbow.txt means we are reading from the file rainbow.txt

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

int main(int argc,char**argv)
{
        int i;
        char answer[100];
        for(i=0;i<8;i++)
        {
                scanf("%s",answer); //you can also use fgets-I will do this in a future lecture. Getting
each line from file
                printf("%s\n",answer);
        }
}
```

Redirection example 2 (to a file):

```
computer$ gcc redirection_two.c
computer$ ./a.out
Hello world!!!   //notice without redirection, hello world is printed to screen
(base) Computers-MacBook-Air:C computer$ ./a.out > example.txt //using
redirection, nothing is printed to screen (it went to a file named example.txt
```

```
(base) Computers-MacBook-Air:C computer$
```

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

int main(int argc,char**argv)
{
        int i;
        char answer[100];
        printf("Hello world!!!"); //with redirection, this will not print to screen, it will go to a file
}
```

<mark>Redirection example 3 (to and from a file):</mark>

```
computer$ gcc redirection_three.c
computer$ ./a.out //not using redirection
color1 //manually typing in colors (for scanf)
color2
Blue //when we find Blue, we output something to screen (with printf)
We found blue at 3!
color3
color4
Blue
We found blue at 6!
color5
color6
computer$ ./a.out <rainbow.txt>example.txt //using redirection here-notice no
input is needed for scanf (cuz input is read from file rainbow.txt) and no
output is going to screen with printf (because output is redirected to the
file example.txt)
```

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

int main(int argc,char**argv)
{
        int i;
        char answer[100];
        for(i=0;i<8;i++)
        {
                scanf("%s",answer); //getting the line from the file

                if(!strcmp(answer,"Blue"))
                {
                        printf("We found blue at %d!\n",(i+1));
                }

        }
}
```