

## 2.10 Programming Exercises

```
pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./echoDecHex
Enter an unsigned decimal integer: 543
Enter a bit pattern in hexadecimal: 45
543 is stored as 0x0000021f, and
0x00000045 represents the unsigned decimal integer 69
pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./echoDecHex
Enter an unsigned decimal integer: 100
Enter a bit pattern in hexadecimal: 64
100 is stored as 0x00000064, and
0x00000064 represents the unsigned decimal integer 100
pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./echoDecHex
Enter an unsigned decimal integer: 43981
Enter a bit pattern in hexadecimal: abcd
43981 is stored as 0x0000abcd, and
0x0000abcd represents the unsigned decimal integer 43981
pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./echoDecHex
Enter an unsigned decimal integer: 2022
Enter a bit pattern in hexadecimal: 226
2022 is stored as 0x000007e6, and
0x00000226 represents the unsigned decimal integer 550
pi@raspberrypi:~/Documents/spring2022/assignment2 $ Very Cool
```

- 1.
2. Largest number as 32 bits
3. Anything bigger than 7ffffff

```
pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./echoDecHex
Enter an unsigned decimal integer: 10
Enter a bit pattern in hexadecimal: 7fffffff
10 is stored as 0x0000000a, and
0x7fffffff represents the unsigned decimal integer 2147483647
pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./echoDecHex
Enter an unsigned decimal integer: 10
Enter a bit pattern in hexadecimal: 8fffffff
10 is stored as 0x0000000a, and
0x8fffffff represents the unsigned decimal integer -1879048193
pi@raspberrypi:~/Documents/spring2022/assignment2 $ :(
```

```

pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./echoDecHexAddr
Enter an unsigned decimal integer: 100
Enter a bit pattern in hexadecimal: 64
100 is stored as 0x00000064, and
0x00000064 represents the unsigned decimal integer 100
Address of 100 is 0xbcd6c22c
Address of 0x00000064 is 0xbcd6c228
pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./echoDecHexAddr
Enter an unsigned decimal integer: 43981
Enter a bit pattern in hexadecimal: abcd
43981 is stored as 0x0000abcd, and
0x0000abcd represents the unsigned decimal integer 43981
Address of 43981 is 0xbcd7422c
Address of 0x0000abcd is 0xbcd74228
pi@raspberrypi:~/Documents/spring2022/assignment2 $ █

```

4.

## 2.12 Programming Exercise

1. Variable anInt is stored in address: 0xbcd6c22c and the variable aFloat is stored in address: 0xbcd6c228.

## 2.14 Programming Exercise

```

pi@raspberrypi:~/Documents/spring2022/assignment2 $ ./stringInHex
0x10508: 0x48
0x10509: 0x65
0x1050a: 0x6c
0x1050b: 0x6c
0x1050c: 0x6f
0x1050d: 0x20
0x1050e: 0x77
0x1050f: 0x6f
0x10510: 0x72
0x10511: 0x6c
0x10512: 0x64
0x10513: 0x2e
0x10514: 0x0a
0x10515: 0x00
pi@raspberrypi:~/Documents/spring2022/assignment2 $ █

```

1.