

ICS Homework Week 7

October 23, 2020

1. **Type Casting** Assume we are using **64-bit machine**. Consider the following program.

```
1 char a = -6;
2 unsigned char b = a;
3 unsigned short c = a;
4 int d = a;
5 short e = 0xcafe;
6 unsigned char f = e;
7 unsigned int g = e;
```

Write the value of variables below in decimal.

Variable	Value
a	-6
b	
c	
d	
e	
f	
g	

2. **Value Comparison** Assume int value is encoded using **16 bits**. Please fill in the following table with "<",">" or "=". *U* means the constant is unsigned.

Constant A	Constant B	A ? B
-2U	-1U	
-1	1	
-1	100U	
-1	65535U	
-32767	32768U	