

Problem 9. (9 points):

Assume we are running code on a 6-bit machine using two's complement arithmetic for signed integers. A "short" integer is encoded using 3 bits. Fill in the empty boxes in the table below. The following definitions are used in the table:

```
short sy = -3;
int y = sy;
int x = -17;
unsigned ux = x;
```

Note: You need not fill in entries marked with “–”.

Expression	Decimal Representation	Binary Representation
Zero	0	
–	–6	
–		01 0010
ux		
y		
$x \gg 1$		
TMax		
–TMin		
TMin + TMin		