3. Implement the two procedures listed in slides 16 and 17 of the PL Data Types presentation we went through to add numbers using C++ or any language of your choice. Then, show whether they are both Type Safe Functions or not.

Below is the first function in the slides. This is type safe

static boolean add\_fcn(short x, short y) {

short sum = (short)(x + y);

if (sum <= 0) {

return false;

}

else{

return true;

}

}

Below is the second function in the slides. This is not type safe

static boolean add\_int(int x, int y) {

int sum = x + y;

if (sum <=0) {

return false;

}else {

return true;

}

}

Below are the programs run in the order they appear in this document. The first one, showing overflow, proves that it is not type safe. However the second one is.

