

```

int main(int argc, char *argv[])
{
  if (argc != 4) {
    fprintf(stderr, "usage: arith n n n\n");
    exit(1);
  }
  x = atoi(argv[1]);
  y = atoi(argv[2]);
  z = atoi(argv[3]);

  t1 = x + y;
  t2 = z + t1;
  t3 = x + 4;
  t4 = y * 48;
  t5 = t3 + t4;
  rval = t2 * t5;

  printf("%d\n", rval);
  return 0;
}

```

8048527: mov 0x8049810,%ebx	# x	
804852d: mov 0x804981c,%edx	# y	
8048533: lea (%edx,%ebx,1),%ecx	# x+y	-> ecx
8048536: mov %ecx,0x8049828	#	-> t1 (9828)
804853c: add %ecx,%eax	# x+y+z	-> eax
804853e: mov %eax,0x804980c	#	-> t2 (980c)
8048543: add \$0x4,%ebx	# x+4	-> ebx
8048546: mov %ebx,0x8049814	#	-> t3 (9814)
804854c: lea (%edx,%edx,2),%edx	# 3y	-> edx
804854f: shl \$0x4,%edx	# 48y	-> edx
8048552: mov %edx,0x8049820	#	-> t4
8048558: add %ebx,%edx	# t3+t4	-> edx
804855a: mov %edx,0x804982c	#	-> t5
8048560: imul %edx,%eax	# t2*t5	-> eax
8048563: mov %eax,0x8049818	#	-> rval (9818)

Memory: Which variable goes where?

0x8048980C	
0x80489810	
0x80489814	
0x80489818	
0x8048981C	
0x80489820	
0x80489824	
0x80489828	

