

Submitter: dereky1(Yang,Derek)

=====start of the write-up=====

Main:

```
dereky1@elke-huebsch:~/45c/hw6
dereky1@elke-huebsch 01:34:16 ~/45c/hw6
$ g++ main.cpp -o main
dereky1@elke-huebsch 01:37:02 ~/45c/hw6
$ ./main
Shape: Triangle
Base: 5 Height: 5
  /\
 /\
//\
///\
////\
/////
Shape: Triangle
Base: 3 Height: 4
  /\
 /\
//\
///
Shape: Circle
Radius: 5
ooo
ooooo
ooooo
ooo
Shape: Circle
Radius: 10
ooooo
oooooooooooo
oooooooooooo
oooooooooooo
oooooooooooo
oooooooooooo
ooooo
```

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```
dereky1@elke-huebsch:~/45c/hw6
Shape: Square
Side: 5
|||||
|||||
|||||
|||||
|||||
Shape: Square
Side: 10
|||||
|||||
|||||
|||||
|||||
|||||
|||||
|||||
|||||
|||||
Shape: Rectangle
Length: 4 Width: 8
|||||
|||||
|||||
|||||
Shape: Rectangle
Length: 8 Width: 4
|||||
|||||
|||||
|||||
|||||
|||||
|||||
```

```
dereky1@elke-huebsch:~/45c/hw6
Shape: Rectangle
Length: 4 Width: 8
|||||
|||||
|||||
|||||
Shape: Rectangle
Length: 8 Width: 4
|||||
|||||
|||||
|||||
|||||
|||||
|||||
Total Area: 600.199
dereky1@elke-huebsch 01:37:04 ~/45c/hw6
$
```

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Valgrind:

```
dereky1@elke-huebsch:~/45c/hw6
derekyl@elke-huebsch 01:38:53 ~/45c/hw6
$ valgrind --tool=memcheck --leak-check=yes --show-reachable=yes --track-origins=yes main
==19502== Memcheck, a memory error detector
==19502== Copyright (C) 2002-2012, and GNU GPL'd, by Julian Seward et al.
==19502== Using Valgrind-3.8.1 and LibVEX; rerun with -h for copyright info
==19502== Command: main
==19502==
Shape: Triangle
Base: 5 Height: 5
  /\
 /\
//\
///\
////\
/////
Shape: Triangle
Base: 3 Height: 4
  /\
 /\
//\
///\
////
Shape: Circle
Radius: 5
  ooo
ooooo
ooooo
  ooo
Shape: Circle
Radius: 10
  ooooo
oooooooooooo
oooooooooooo
oooooooooooo
oooooooooooo
  ooooo
```

Submitter: dereky1(Yang,Derek)

```
dereky1@elke-huebsch:~/45c/hw6
Shape: Square
Side: 5
|||||
|||||
|||||
|||||
|||||
Shape: Square
Side: 10
|||||
|||||
|||||
|||||
|||||
|||||
|||||
|||||
|||||
|||||
Shape: Rectangle
Length: 4 Width: 8
|||||
|||||
|||||
|||||
Shape: Rectangle
Length: 8 Width: 4
|||||
|||||
|||||
|||||
|||||
|||||
Total Area: 600.199
```

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```
dereky1@elke-huebsch:~/45c/hw6
==19502== HEAP SUMMARY:
==19502==    in use at exit: 72,704 bytes in 1 blocks
==19502==    total heap usage: 53 allocs, 52 frees, 73,888 bytes allocated
==19502==
==19502== 72,704 bytes in 1 blocks are still reachable in loss record 1 of 1
==19502==    at 0x4A06A2E: malloc (vg_replace_malloc.c:270)
==19502==    by 0x4C99ACF: _GLOBAL__sub_I_eh_alloc.cc (eh_alloc.cc:117)
==19502==    by 0x4D4BBC5: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==19502==    by 0x4C94482: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==19502==
==19502== LEAK SUMMARY:
==19502==    definitely lost: 0 bytes in 0 blocks
==19502==    indirectly lost: 0 bytes in 0 blocks
==19502==    possibly lost: 0 bytes in 0 blocks
==19502==    still reachable: 72,704 bytes in 1 blocks
==19502==    suppressed: 0 bytes in 0 blocks
==19502==
==19502== For counts of detected and suppressed errors, rerun with: -v
==19502== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 6 from 6)
dereky1@elke-huebsch 01:39:05 ~/45c/hw6
$
```

=====end of the write-up=====