HW 7 REPORT:

WITHOUT EXCEPTIONS:

```
alvinvn@andromeda-63:~/hw/hw7
alvinvn@andromeda-63 23:45:34 ~/hw/hw7
alvinvn@andromeda-63 23:45:43 ~/hw/hw7
  a.out
                                              10.00
15.00
20.00
25.00
    0.00
    0.00
            3.00
                     6.00
                              9.00
                                     12.00
                                                       18.00
                                                                21.00
                                                                                  27.00
                             12.00
                                                                                  36.00
    0.00
                                     16.00
                                                       24.00
                                                                         32.00
                                              30.00
                                                       36.00
    0.00
                                                       42.00
                                                                49.00
                                                                         56.00
                                                                                  63.00
alvinvn@andromeda-63 23:45:45 ~/hw/hw7
```

VALGRIND WITHOUT EXCEPTIONS:

```
alvinvn@andromeda-63:~/hw/hw7
 valgrind a.out
  19138== Memcheck, a memory error detector
 =19138== Copyright (C) 2002-2013, and GNU GPL'd, by Julian Seward et al.
=19138== Using Valgrind-3.10.0 and LibVEX; rerun with -h for copyright info
=19138== Command: a.out
                                                           12
16
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                 0.00
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                                           6.00
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                              6.00
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24.00
28.00
                            10.00
                                         15.00
18.00
                                                                   25.00
30.00
                                                                                                                       45.00
54.00
                                                                                             35.00
    0.00
                                                                                36.00
                                                                                             42.00
                                                                                                          48.00
 =19138== HEAP SUMMARY:
                    in use at exit: 72,704 bytes in 1 blocks
 =19138==
  =19138== LEAK SUMMARY:
 -19103-- LEAR SUMMARY:
=19138== definitely lost: 0 bytes in 0 blocks
=19138== indirectly lost: 0 bytes in 0 blocks
=19138== possibly lost: 0 bytes in 0 blocks
=19138== still reachable: 72,704 bytes in 1 blocks
=19138== suppressed: 0 bytes in 0 blocks
=19138== Rerun with --leak-check=full to see details of leaked memory
```

WITH EXCEPTIONS:

alvinvn@	andromeda	ı-63:~/hw/hı	w7								_	×
	n.cpp -o	a.out		w/hw7								^
\$ a.out 0												
0		2	3 6	4								
0	2	6	9	8 12								
0	4		12	16								
0	5 6	10 12	15 18	20 24								
0	7	14	21	28								
0		16	24	32								
0.00	0.00	18 0.00	27 0.00	36 0.00	0.00	0.00	0.00	0.00	0.00			
0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00			
0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00			
0.00	3.00 4.00	6.00 8.00	9.00 12.00	12.00 16.00	15.00 20.00	18.00 24.00	21.00 28.00	24.00 32.00	27.00 36.00			
0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00			
0.00	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00	54.00			
0.00 Starting.	7.00	14.00	21.00	28.00	35.00	42.00	49.00	56.00	63.00			
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00			
0.00	2.00 3.00	4.00 6.00	6.00 9.00	8.00 12.00	10.00 15.00	12.00 18.00	14.00 21.00	16.00 24.00	18.00 27.00			
0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	36.00			
0.00	5.00 6.00	10.00 12.00	15.00	20.00	25.00	30.00 36.00	35.00	40.00 48.00	45.00 54.00			
0.00	7.00	14.00	18.00 21.00	28.00	30.00 35.00	42.00	42.00 49.00	56.00	63.00			
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0		16	24	32								
0.00	0.00	18 0.00	27 0.00	36 0.00	0.00	0.00	0.00	0.00	0.00			
0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00			
0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00			
0.00	3.00 4.00	6.00 8.00	9.00 12.00	12.00 16.00	15.00 20.00	18.00 24.00	21.00 28.00	24.00 32.00	27.00 36.00			
0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00			
0.00	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00	54.00			
0.00 Starting.	7.00	14.00	21.00	28.00	35.00	42.00	49.00	56.00	63.00			
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00			
0.00	2.00 3.00	4.00 6.00	6.00 9.00	8.00 12.00	10.00 15.00	12.00 18.00	14.00 21.00	16.00 24.00	18.00 27.00			
0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	36.00			
0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00 42.00	40.00	45.00			
0.00	6.00 7.00	12.00 14.00	18.00 21.00	24.00 28.00	30.00 35.00	36.00 42.00	49.00	48.00 56.00	54.00 63.00			
0.000.000	.000.000	.000.000										
This is on Done	ut of bo	unds										
Done 0												
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VALGRIND WITH EXCEPTIONS:

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			002-2013 3.10.0 a						nfo		
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		16	24	32							
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	1.00	2.00 4.00	3.00 6.00	4.00 8.00	5.00 10.00	6.00 12.00	7.00 14.00	8.00 16.00	9.00 18.00		
0.00	3.00	6.00	9.00	12.00	15.00	18.00	21.00	24.00	27.00		
0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	36.00		
0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00		
0.00	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00	54.00		
0.00	7.00	14.00	21.00	28.00	35.00	42.00	49.00	56.00	63.00		
rting		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
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0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00		
0.00	3.00	6.00	9.00	12.00	15.00	18.00	21.00	24.00	27.00		
0.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	36.00		
0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00		
0.00	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00	54.00		
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		18	27	36							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00		
0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00		
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0.00	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00		
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0.00	7.00	14.00	21.00	28.00	35.00	42.00	49.00	56.00	63.00		
rting											
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                                                                                 63.00
This is out of bounds
one
 =21268==
 =21268== HEAP SUMMARY:
 =21268==
 =21268==
            total heap usage: 169 allocs, 168 frees, 79,403 bytes allocated
=21268==
 =21268== LEAK SUMMARY:
 =21268==
 =21268==
 =21268==
             possibly lost: 0 bytes in 0 blocks still reachable: 72,704 bytes in 1 blocks
 =21268==
                  suppressed: 0 bytes in 0 blocks
 =21268==
 =21268== Rerun with --leak-check=full to see details of leaked memory
 =21268== For counts of detected and suppressed errors, rerun with: -v
 =21268== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 1 from 1)
alvinvn@andromeda-63 00:07:58 ~/hw/hw7
```