



UNIVERSIDAD NACIONAL DE INGENIERÍA

Facultad de Ciencias

Escuela Profesional de Ciencia de la Computación

CUARTA PRÁCTICA CALIFICADA

Curso: **Fundamentos de Programación CC112 - A**

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Código: 20232597K

1. suma->

```
pcs5@pcs5:~/CC112A/pc02-cc112a-danielldiazm-maker/Semana5/PC4$ valgrind ./build/debug/Pregunta01
==15052== Memcheck, a memory error detector
==15052== Copyright (C) 2002-2017, and GNU GPL'd, by Julian Seward et al.
==15052== Using Valgrind-3.18.1 and LibVEX; rerun with -h for copyright info
==15052== Command: ./build/debug/Pregunta01
==15052==
==15052== Invalid read of size 4
==15052== at 0x1092CA: Suma(Polinomio*, int) (Pregunta01.cpp:17)
==15052== by 0x1095A3: main (Pregunta01.cpp:58)
==15052== Address 0x4de1d48 is 0 bytes after a block of size 8 alloc'd
==15052== at 0x484A2F3: operator new[](unsigned long) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x1094DD: main (Pregunta01.cpp:48)
==15052==
Suma de los tres polinomios: 4x^2 + -4x^1 + 9
==15052== Invalid read of size 8
==15052== at 0x1095C2: main (Pregunta01.cpp:61)
==15052== Address 0x4de1c88 is 8 bytes inside a block of size 48 free'd
==15052== at 0x484CA8F: operator delete[](void*) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x1095BD: main (Pregunta01.cpp:60)
==15052== Block was alloc'd at
==15052== at 0x484A2F3: operator new[](unsigned long) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x109425: main (Pregunta01.cpp:40)
==15052==
==15052== Invalid read of size 8
==15052== at 0x1095CF: main (Pregunta01.cpp:61)
==15052== Address 0x4de1c88 is 8 bytes inside a block of size 48 free'd
==15052== at 0x484CA8F: operator delete[](void*) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x1095BD: main (Pregunta01.cpp:60)
==15052== Block was alloc'd at
==15052== by 0x109425: main (Pregunta01.cpp:40)
==15052==
==15052== Invalid read of size 8
==15052== at 0x1095E3: main (Pregunta01.cpp:62)
==15052== Address 0x4de1c98 is 24 bytes inside a block of size 48 free'd
==15052== at 0x484CA8F: operator delete[](void*) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x1095BD: main (Pregunta01.cpp:60)
==15052== Block was alloc'd at
==15052== at 0x484A2F3: operator new[](unsigned long) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x109425: main (Pregunta01.cpp:40)
==15052==
==15052== Invalid read of size 8
==15052== at 0x1095F4: main (Pregunta01.cpp:62)
==15052== Address 0x4de1c98 is 24 bytes inside a block of size 48 free'd
==15052== at 0x484CA8F: operator delete[](void*) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x1095BD: main (Pregunta01.cpp:60)
==15052== Block was alloc'd at
==15052== at 0x484A2F3: operator new[](unsigned long) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x109425: main (Pregunta01.cpp:40)
==15052==
==15052== Invalid read of size 8
==15052== at 0x109608: main (Pregunta01.cpp:63)
==15052== Address 0x4de1ca8 is 40 bytes inside a block of size 48 free'd
==15052== at 0x484CA8F: operator delete[](void*) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x1095BD: main (Pregunta01.cpp:60)
==15052== Block was alloc'd at
==15052== at 0x484A2F3: operator new[](unsigned long) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x109425: main (Pregunta01.cpp:40)
==15052==
==15052== Invalid read of size 8
==15052== at 0x109619: main (Pregunta01.cpp:63)
==15052== Address 0x4de1ca8 is 40 bytes inside a block of size 48 free'd
==15052== at 0x484CA8F: operator delete[](void*) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x1095BD: main (Pregunta01.cpp:60)
==15052== Block was alloc'd at
==15052== at 0x484A2F3: operator new[](unsigned long) (in /usr/libexec/valgrind/vgpreload_memcheck-amd64-linux.so)
==15052== by 0x109425: main (Pregunta01.cpp:40)
==15052==
4x^0 + ==15052==
==15052== HEAP SUMMARY:
==15052== in use at exit: 0 bytes in 0 blocks
==15052== total heap usage: 6 allocs, 6 frees, 73,812 bytes allocated
==15052==
==15052== All heap blocks were freed -- no leaks are possible
==15052==
==15052== For lists of detected and suppressed errors, rerun with: -s
==15052== ERROR SUMMARY: 7 errors from 7 contexts (suppressed: 0 from 0)
pcs5@pcs5:~/CC112A/pc02-cc112a-danielldiazm-maker/Semana5/PC4$
```

2.

```
pcs5@pcs5:~/CC112A/pc02-cc112a-danielldiazm-maker/Semana5/PC4$ valgrind ./build/debug/Pregunta02
==13239== Memcheck, a memory error detector
==13239== Copyright (C) 2002-2017, and GNU GPL'd, by Julian Seward et al.
==13239== Using Valgrind-3.18.1 and LibVEX; rerun with -h for copyright info
==13239== Command: ./build/debug/Pregunta02
==13239==


| Seleccion | PG | PE | PP | GF  | GC  | DG  | Pts | Rend(%) |
|-----------|----|----|----|-----|-----|-----|-----|---------|
| Pais_3    | 41 | 15 | 44 | 229 | 246 | -17 | 138 | 46      |
| Pais_4    | 39 | 18 | 43 | 232 | 233 | -1  | 135 | 45      |
| Pais_1    | 38 | 15 | 47 | 251 | 253 | -2  | 129 | 43      |
| Pais_5    | 36 | 21 | 43 | 248 | 267 | -19 | 129 | 43      |
| Pais_2    | 37 | 15 | 48 | 230 | 253 | -23 | 126 | 42      |


CAMPEON: Pais_3 | Puntaje: 138 | -17 | 46%
==13239==
==13239== HEAP SUMMARY:
==13239==   in use at exit: 0 bytes in 0 blocks
==13239==   total heap usage: 3 allocs, 3 frees, 73,928 bytes allocated
==13239==
==13239== All heap blocks were freed -- no leaks are possible
==13239==
==13239== For lists of detected and suppressed errors, rerun with: -s
==13239== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
pcs5@pcs5:~/CC112A/pc02-cc112a-danielldiazm-maker/Semana5/PC4$
```

3.

4.