REPORT DCE.md 4/24/2020

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Report for Dead Code Elimination

Benchmark	Orig. # Inst.	Opt. Time	Opt. # Inst.
Arrayparam	841	0.296s	444
Bubble	4374	0.286s	2747
Check	140	0.251s	9
Dynamic	39155	0.351s	24335
Fib	274	0.262s	230
Gcd	103	0.251s	81
Newdyn	136919	0.294s	85151
QS	4574	0.296s	3368
While Array	377	0.247s	278

IOPT Bash Script Output

Bash script found in root directory named iopt.

```
Program starting
----arrayparam-----
Parsed.
real 0m0.326s
user 0m0.462s
sys 0m0.063s
21c21
< Total Instructions Executed = 841
> Total Instructions Executed = 444
-----bubble-----
Parsed.
real
     0m0.343s
user
       0m0.583s
sys 0m0.059s
16c16
< Total Instructions Executed = 4374
> Total Instructions Executed = 2747
  -----check-----
```

REPORT DCE.md 4/24/2020

```
Parsed.
real 0m0.270s user 0m0.376s
sys 0m0.046s
2c2
< Total Instructions Executed = 140
> Total Instructions Executed = 9
----dynamic-----
Parsed.
real 0m0.428s user 0m0.836s
sys 0m0.068s
2c2
< Total Instructions Executed = 39155
> Total Instructions Executed = 24335
-----fib-----
Parsed.
real 0m0.270s
user 0m0.373s
sys 0m0.051s
21c21
< Total Instructions Executed = 274
> Total Instructions Executed = 230
-----gcd-----
Parsed.
real 0m0.294s user 0m0.399s
sys 0m0.053s
2c2
< Total Instructions Executed = 103
> Total Instructions Executed = 81
----newdyn-----
Parsed.
real 0m0.346s
user 0m0.603s
sys 0m0.057s
2c2
< Total Instructions Executed = 136919
> Total Instructions Executed = 85151
```

REPORT DCE.md 4/24/2020

```
-----qs------
Parsed.
real 0m0.324s
user 0m0<sub>•</sub>534s
sys 0m0.059s
61c61
< Total Instructions Executed = 4574
> Total Instructions Executed = 3368
----while_array-----
Parsed.
real 0m0.285s
user 0m0.402s
sys 0m0.051s
11c11
< Total Instructions Executed = 377
> Total Instructions Executed = 278
Done.
```