LSV PA1

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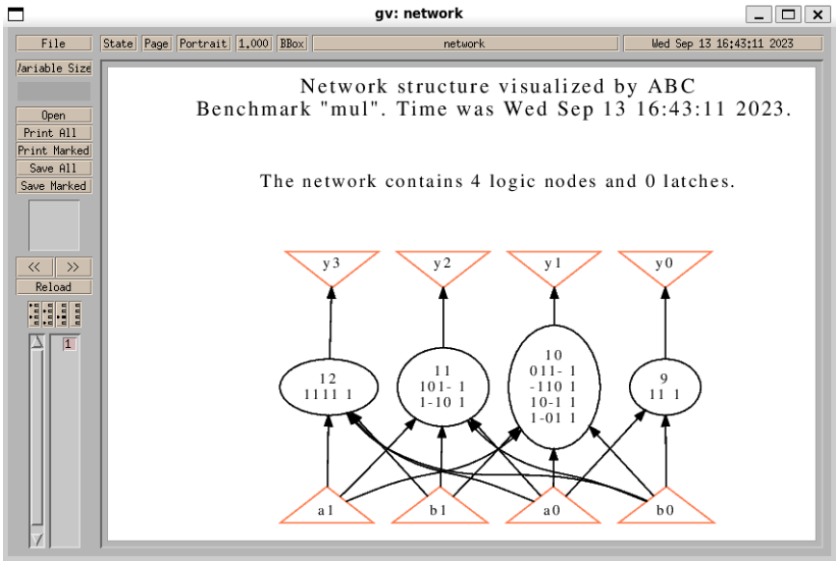
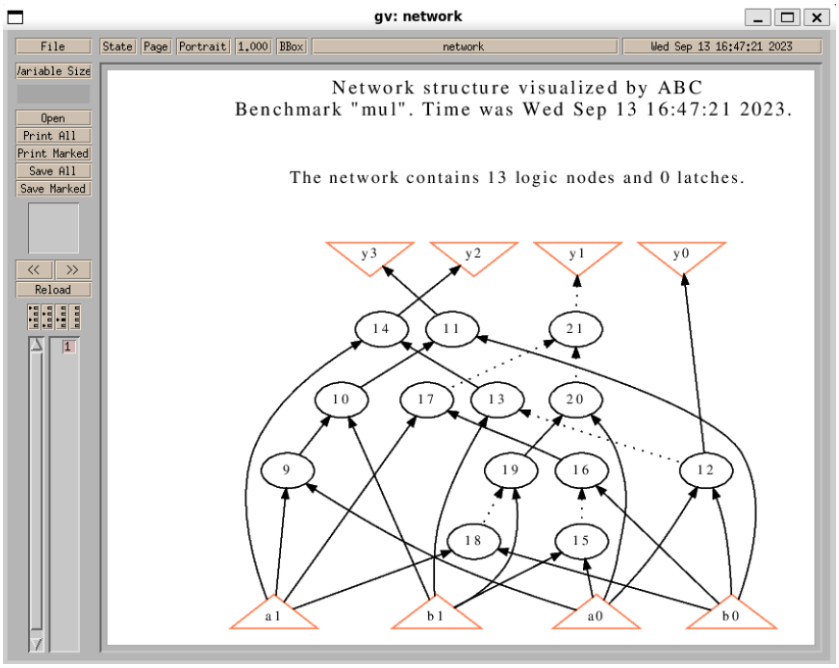
2 [Using ABC] (10%)

(b)

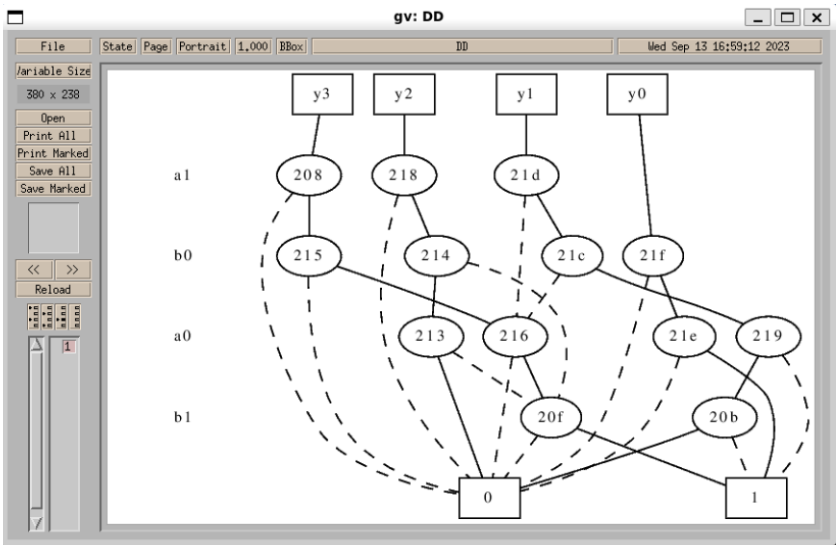
```
abc 01> read ../PA1/mul.blif
abc 02> print_stats
mul                         : i/o =    4/    4  lat =    0  nd =     4  edge =     14  cube =     8  lev = 1
abc 02> show
```



```
abc 02> strash
abc 03> show
```




```
abc 03> collapse
abc 04> show_bdd -g
```

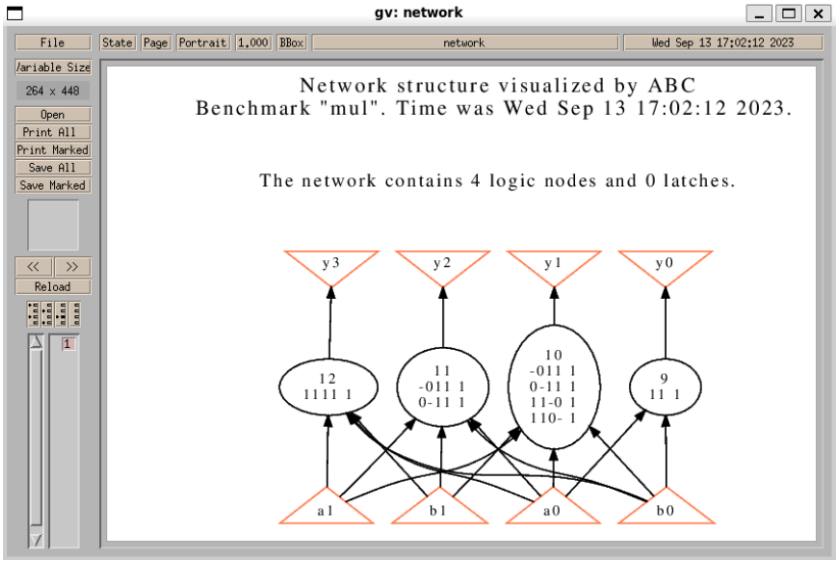


3 [ABC Boolean Function Representations] (10%)

(a)

1.

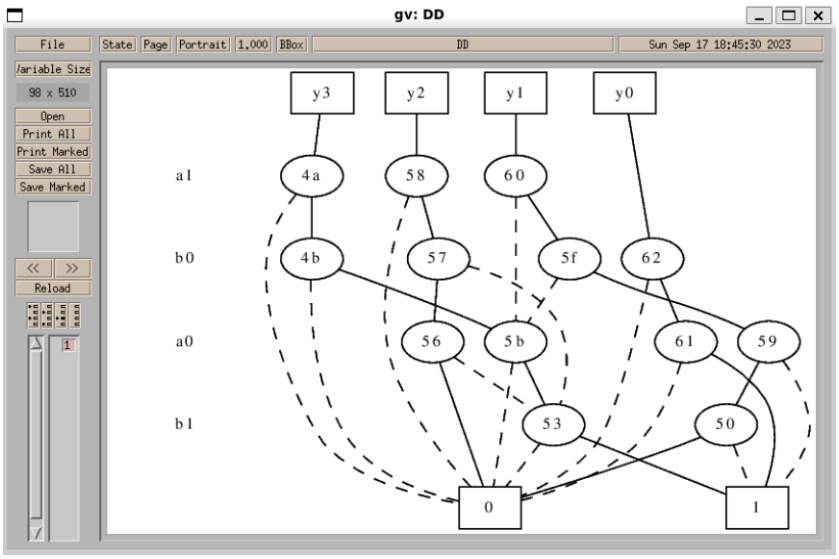
```
abc 01> read ../PA1/mul.blif
abc 02> aig
abc 02> show
```



The two graphs (“strash” and “aig”) are different. It seems that command “show” will not draw local AIG in the graph. Command “show” draws AIG when the whole network is AIG.

2.

```
abc 01> read ../PA1/mul.blif
abc 02> bdd
abc 02> show_bdd -g
```



The two graphs (“collapse” and “bdd”) look similar. It seems that command “show_bdd -g” will draw the BDD of the whole network even if it is not BDD.

(b)

Command sequence: logic; logicpush; sop;

```
abc 01> read ../PA1/mul.blif
abc 02> strash
abc 03> logic
abc 04> logicpush
Saved 7 nodes after 7 pushes.
abc 05> sop
abc 05> show
```