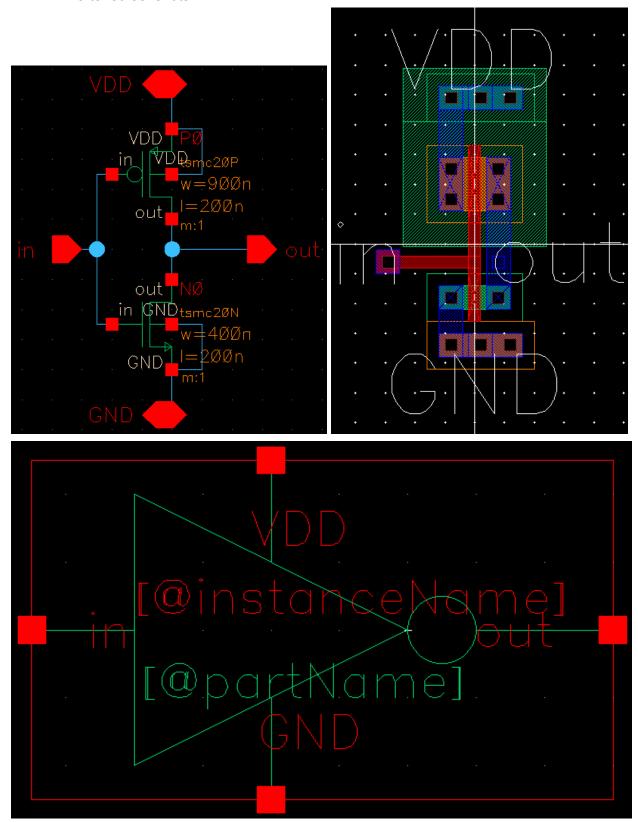
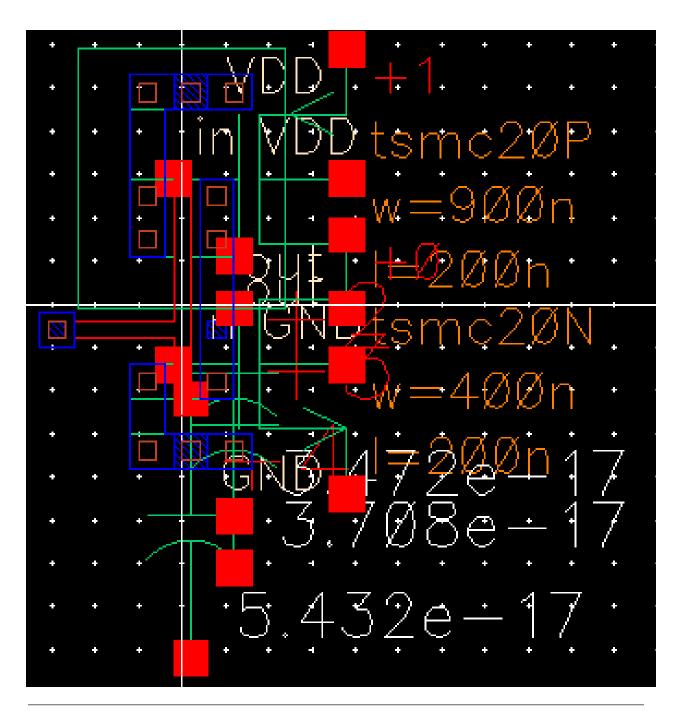
Name: Ahmet Coskuner

TA: Neha Gupta

ECEN 714 Lab X

1. Inverter screenshots





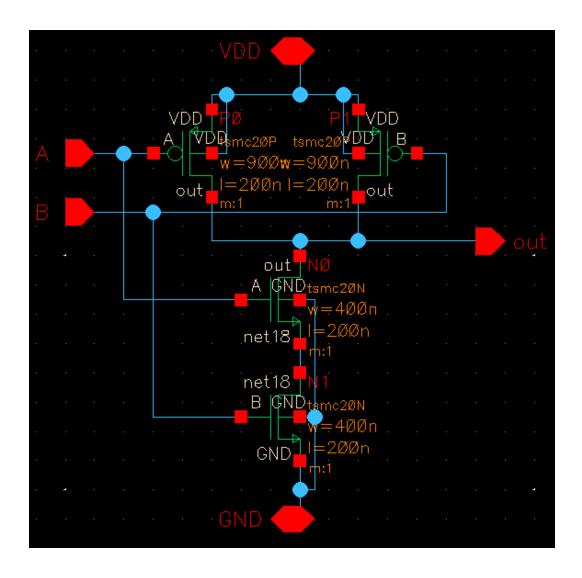
2. Inverter LVS Output

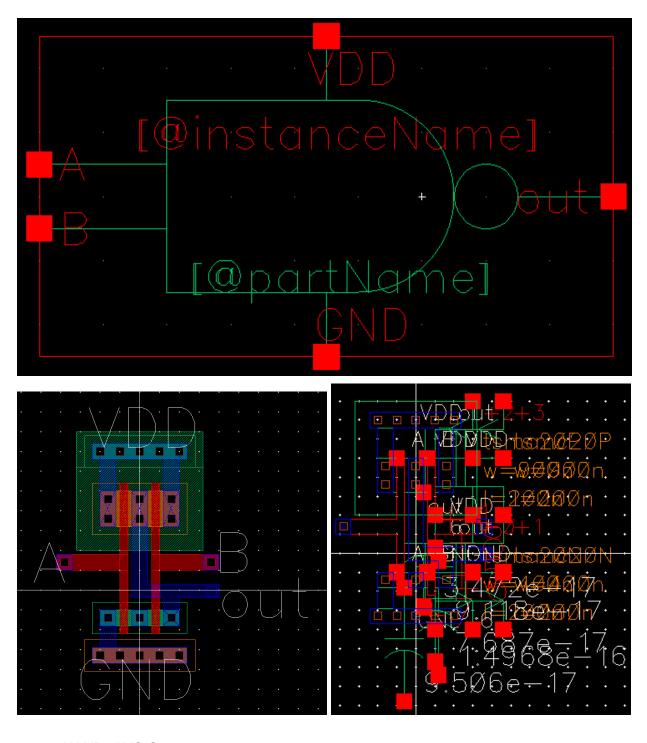
```
@(#)$CDS: LVS version 6.1.8-64b 08/04/2020 19:19 (cpgsrv11) $
Command line: /opt/coe/cadence/IC618/tools.lnx86/dfII/bin/64bit/LVS -dir
/home/grads/a/acoskuner500/ecen714/LVS -l -s -t
/home/grads/a/acoskuner500/ecen714/LVS/layout
/home/grads/a/acoskuner500/ecen714/LVS/schematic
Like matching is enabled.
Net swapping is enabled.
Using terminal names as correspondence points.
Compiling Diva LVS rules...
   Net-list summary for /home/grads/a/acoskuner500/ecen714/LVS/layout/netlist
      count
       4
                      nets
       4
                      terminals
       1
                      pmos
       1
   Net-list summary for /home/grads/a/acoskuner500/ecen714/LVS/schematic/netlist
      count
       4
       4
                      terminals
       1
                      pmos
                      nmos
   Terminal correspondence points
   NO N3 GND
   N3
           N1
                      VDD
   N2
           N2
                     in
            ΝO
   N1
                     out
Devices in the netlist but not in the rules:
      pcapacitor
Devices in the rules but not in the netlist:
      cap nfet pfet nmos4 pmos4
The net-lists match.
                           layout schematic
                            instances
       un-matched
                              0 0
                             0
                                     0
       rewired
       size errors
                             0
                                   0
       pruned
                             0
                                    2
       active
                              2.
       total
                              2
                               nets
                             0
       un-matched
       merged
                              0
                                     0
                              0
       pruned
       active
                              4
                                     4
       total
                              4
                              terminals
       un-matched
                              0 0
       matched but
       different type
                              0
       total
                              4
                                     4
Probe files from /home/grads/a/acoskuner500/ecen714/LVS/schematic
devbad.out:
netbad.out:
mergenet.out:
```

```
termbad.out:
prunenet.out:
prunedev.out:
audit.out:

Probe files from /home/grads/a/acoskuner500/ecen714/LVS/layout
devbad.out:
netbad.out:
mergenet.out:
termbad.out:
prunenet.out:
prunedev.out:
audit.out:
```

3. NAND2 screenshots





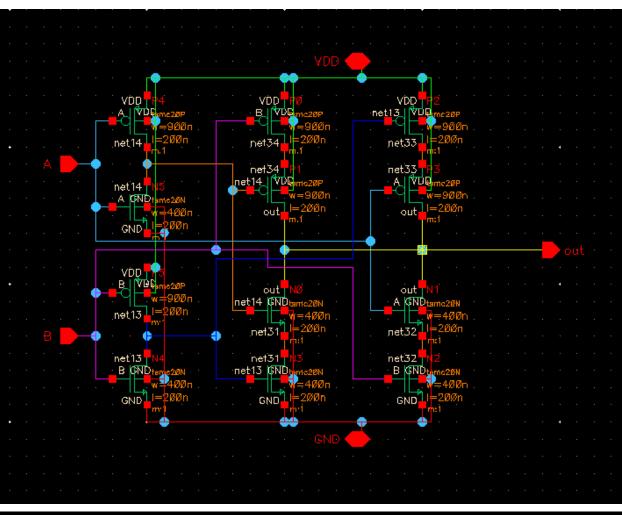
4. NAND2 LVS Output

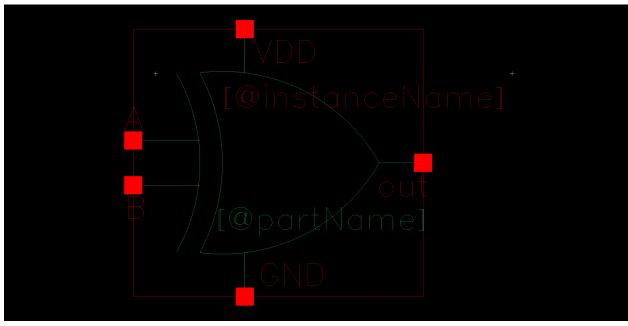
```
@(#)$CDS: LVS version 6.1.8-64b 08/04/2020 19:19 (cpgsrv11) $
Command line: /opt/coe/cadence/IC618/tools.lnx86/dfII/bin/64bit/LVS -dir
/home/grads/a/acoskuner500/ecen714/LVS -l -s -t
/home/grads/a/acoskuner500/ecen714/LVS/layout
/home/grads/a/acoskuner500/ecen714/LVS/schematic
Like matching is enabled.
Net swapping is enabled.
Using terminal names as correspondence points.
Compiling Diva LVS rules...
   Net-list summary for /home/grads/a/acoskuner500/ecen714/LVS/layout/netlist
      count
       6
                       nets
       5
                      terminals
       2
                       pmos
       2
   Net-list summary for /home/grads/a/acoskuner500/ecen714/LVS/schematic/netlist
      count
       6
       5
                      terminals
       2
                      pmos
       2
                      nmos
   Terminal correspondence points
   NЗ
             N1 A
   N2
            N0
                      В
   N1
           NЗ
                     GND
             N2
                      VDD
   N5
            N4
   N4
                      out
Devices in the netlist but not in the rules:
       pcapacitor
Devices in the rules but not in the netlist:
       cap nfet pfet nmos4 pmos4
The net-lists match.
                           layout schematic
                             instances
                              0
                                   0
       un-matched
       rewired
                             0
                                      0
                              0
       size errors
                                      0
                             0
       pruned
                                     0
       active
                              4
       total
                              4
                                      4
                               nets
       un-matched
                             0
                                      0
       merged
                              0
                                      0
       pruned
                              Ω
                                      Ω
       active
                              6
                                      6
       total
                              6
                                      6
                              terminals
       un-matched
                              0
                                      0
       matched but
       different type
                              0
                                      0
       total
Probe files from /home/grads/a/acoskuner500/ecen714/LVS/schematic
devbad.out:
netbad.out:
mergenet.out:
```

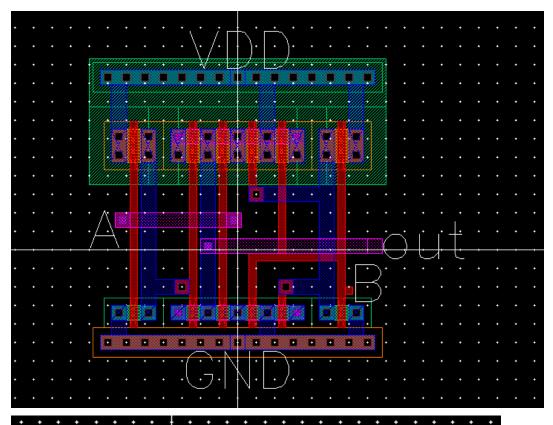
```
termbad.out:
prunenet.out:
prunedev.out:
audit.out:
Probe files from /home/grads/a/acoskuner500/ecen714/LVS/layout
devhad out:
netbad.out:
mergenet.out:
termbad.out:
prunenet.out:
prunedev.out:
audit.out:
@(#)$CDS: LVS version 6.1.8-64b 08/04/2020 19:19 (cpgsrv11) $
Command line: /opt/coe/cadence/IC618/tools.lnx86/dfII/bin/64bit/LVS -dir
/home/grads/a/acoskuner500/ecen714/LVS -l -s -t
/home/grads/a/acoskuner500/ecen714/LVS/layout
/home/grads/a/acoskuner500/ecen714/LVS/schematic
Like matching is enabled.
Net swapping is enabled.
Using terminal names as correspondence points.
Compiling Diva LVS rules...
    Net-list summary for /home/grads/a/acoskuner500/ecen714/LVS/layout/netlist
       count
        6
                        nets
        5
                        terminals
        2
                        pmos
                        nmos
    Net-list summary for /home/grads/a/acoskuner500/ecen714/LVS/schematic/netlist
       count
        6
                        nets
                        terminals
        5
        2
                        pmos
        2
                        nmos
    Terminal correspondence points
    N3
              N1
                      А
              NO
                        В
    N2
    Ν1
              ΝЗ
                        GND
              N2
                        VDD
    N5
    N4
             N4
                        out
Devices in the netlist but not in the rules:
       pcapacitor
Devices in the rules but not in the netlist:
       cap nfet pfet nmos4 pmos4
The net-lists match.
                             layout schematic
                                instances
                                0
        un-matched
                                        0
        rewired
                                0
                                        0
```

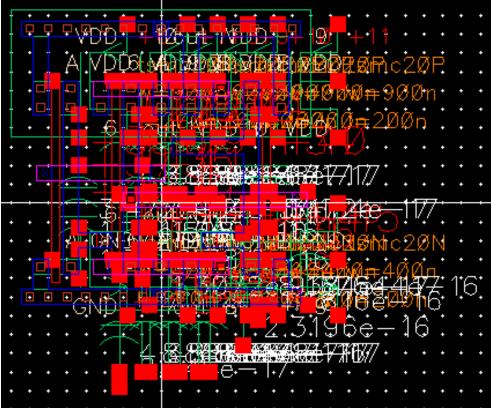
```
size errors
       pruned
                              Ω
                                     Ω
       active
                              4
                                      4
       total
                              4
                                      4
                               nets
       un-matched
                            0
       merged
                            0
       pruned
                             6
6
       active
       total
                             terminals 0 0
       un-matched
       matched but
                            0 0
5 5
       different type
Probe files from /home/grads/a/acoskuner500/ecen714/LVS/schematic
devbad.out:
netbad.out:
mergenet.out:
termbad.out:
prunenet.out:
prunedev.out:
audit.out:
Probe files from /home/grads/a/acoskuner500/ecen714/LVS/layout
devbad.out:
netbad.out:
mergenet.out:
termbad.out:
prunenet.out:
prunedev.out:
audit.out:
```

5. XOR2 Screenshots









6. XOR2 LVS Output

```
@(#)$CDS: LVS version 6.1.8-64b 08/04/2020 19:19 (cpgsrv11) $
Command line: /opt/coe/cadence/IC618/tools.lnx86/dfII/bin/64bit/LVS -dir
/home/grads/a/acoskuner500/ecen714/LVS -l -s -t
/home/grads/a/acoskuner500/ecen714/LVS/layout
/home/grads/a/acoskuner500/ecen714/LVS/schematic
Like matching is enabled.
Net swapping is enabled.
Using terminal names as correspondence points.
Compiling Diva LVS rules...
   Net-list summary for /home/grads/a/acoskuner500/ecen714/LVS/layout/netlist
      count
       11
                       nets
       5
                      terminals
       6
                      pmos
       6
   Net-list summary for /home/grads/a/acoskuner500/ecen714/LVS/schematic/netlist
      count
       11
       5
                      terminals
       6
                      pmos
       6
                      nmos
   Terminal correspondence points
   N8
            N8 A
   N7
            Ν6
                      В
   N6
           N2
                     GND
   N10
            ΝO
                      VDD
            N1
   N9
                      out
Devices in the netlist but not in the rules:
      pcapacitor
Devices in the rules but not in the netlist:
       cap nfet pfet nmos4 pmos4
The net-lists match.
                           layout schematic
                             instances
                                  0
       un-matched
                              0
       rewired
                             0
                                      0
                             0
       size errors
                                     0
       pruned
                                     0
       active
                             12
                                    12
       total
                              12
                                     12
                               nets
       un-matched
                             0
                                      0
       merged
                              0
                                      0
       pruned
                              Ω
                                      0
       active
                             11
                                     11
       total
                              11
                                     11
                              terminals
       un-matched
                              0 0
       matched but
                                      0
       different type
                              0
       total
Probe files from /home/grads/a/acoskuner500/ecen714/LVS/schematic
devbad.out:
netbad.out:
mergenet.out:
```

termbad.out:
prunenet.out:
prunedev.out:
audit.out:
Probe files from /home/grads/a/acoskuner500/ecen714/LVS/layout
devbad.out:
netbad.out:
mergenet.out:
termbad.out:
prunenet.out:
prunedev.out:
audit.out: