

Starting from calling `buildBDD(g9, 1, false)`, the steps of building BDD can be shown in the following graph:

```

1  buildBDD(g9, 1){
2      build(g8, 1){
3          witnessBDD(g8, 1){
4              A = buildBDD(g4, 1){
5                  buildBDD(c, 1)
6                  buildBDD(g1, 1){
7                      buildBDD(b, 1)
8                      buildBDD(d, 1)
9                  }
10             }
11             B = buildBDD(g7, 0){
12                 witnessBDD(g7, 0){
13                     A = buildBDD(g6, 0){
14                         buildBDD(g2, 0){
15                             witnessBDD(g2, 0){
16                                 A = buildBDD(e, 0)
17                                 B = buildBDD(~c, 1)
18                                 restrict(A, B)
19                             }
20                         }
21                         buildBDD(d, 0)
22                     }
23                     B = buildBDD(g3, 1){
24                         buildBDD(a, 1)
25                         buildBDD(b, 1)
26                     }
27                     restrict(A, B)
28                 }
29             }
30             restrict(A, B)
31         }
32     }
33     buildBDD(f, 1)
34 }

```

Thus, we have to apply `restrict()` function on **g2**, **g7** and **g8**. After the modification, the resulting BDD is:

```

[6](+) 0x563d1f2069c0 (1)
  [4](+) 0x563d1f206b10 (3)
    [3](+) 0x563d1f206ac0 (1)
      [2](+) 0x563d1f2058f0 (6)
        [0](+) 0x563d1f205990 (28)
          [0](-) 0x563d1f205990 (28) (*)
            [0](-) 0x563d1f205990 (28) (*)
              [0](-) 0x563d1f205990 (28) (*)
                [0](-) 0x563d1f205990 (28) (*)
          [0](-) 0x563d1f205990 (28) (*)
        [0](-) 0x563d1f205990 (28) (*)
      [0](-) 0x563d1f205990 (28) (*)
    [0](-) 0x563d1f205990 (28) (*)
  [0](-) 0x563d1f205990 (28) (*)
[0](-) 0x563d1f205990 (28) (*)

⇒ Total #BddNodes : 5

```

Therefore, we can see that the BDD size is reduced compared to that in problem 6(a).