Figure 2.1

```
== Boolean Function (B-FN) ==
0000. 0000 -> 0
0001. 0001 -> 0
0002. 0010 -> 0
0003. 0011 -> 0
0004. 0100 -> 0
0005. 0101 -> 0
0006. 0110 -> 0
0007. 0111 -> 0
0008. 1000 -> 0
0009. 1001 -> 0
0010. 1010 -> 0
0011. 1011 -> 0
0012. 1100 -> 0
0013. 1101 -> 0
0014. 1110 -> 0
0015. 1111 -> 0
```



```
== Ternary Function (T-FN) ==
0000. **** -> 0
```

maximal compression: number of ternary rules = 1

```
== Boolean Function (B-FN) ==
0000. 0000 -> 1
0001. 0001 -> 1
0002. 0010 -> 1
0003. 0011 -> 1
0004. 0100 -> 1
0005. 0101 -> 1
0006. 0110 -> 1
0007. 0111 -> 1
0008. 1000 -> 1
0009. 1001 -> 1
0010. 1010 -> 1
0011. 1011 -> 1
0012. 1100 -> 1
0013. 1101 -> 1
0014. 1110 -> 1
0015. 1111 -> 1
```



```
== Ternary Function (T-FN) ==
0000. **** -> 1
```

maximal compression: number of ternary rules = 1

Figure 2.2

```
== Boolean Function (B-FN) ==
0000. 0000 -> 0
0001. 0001 -> 1
0002. 0010 -> 1
0003. 0011 -> 0
0004. 0100 -> 1
0005. 0101 -> 0
0006. 0110 -> 0
0007. 0111 -> 1
0008. 1000 -> 1
0009. 1001 -> 0
0010. 1010 -> 0
0011. 1011 -> 1
0012. 1100 -> 0
0013. 1101 -> 1
0014. 1110 -> 1
0015. 1111 -> 0
```



```
== Ternary Function (T-FN) ==
0000. 0000 -> 0
0001. 0001 -> 1
0002. 0010 -> 1
0003. 0011 -> 0
0004. 0100 -> 1
0005. 0101 -> 0
0006. 0110 -> 0
0007. 0111 -> 1
0008. 1000 -> 1
0009. 1001 -> 0
0010. 1010 -> 0
0011. 1011 -> 1
0012. 1100 -> 0
0013. 1101 -> 1
0014. 1110 -> 1
0015. 1111 -> 0
```

maximal compression: number of ternary rules = number of boolean rules = 2^4 = 16; boolean function is incompressible

```
== Boolean Function (B-FN) ==
0000. 0000 -> 1
0001. 0001 -> 0
0002. 0010 -> 0
0003. 0011 -> 1
0004. 0100 -> 0
0005. 0101 -> 1
0006. 0110 -> 1
0007. 0111 -> 0
0008. 1000 -> 0
0009. 1001 -> 1
0010. 1010 -> 1
0011. 1011 -> 0
0012. 1100 -> 1
0013. 1101 -> 0
0014. 1110 -> 0
0015. 1111 -> 1
```

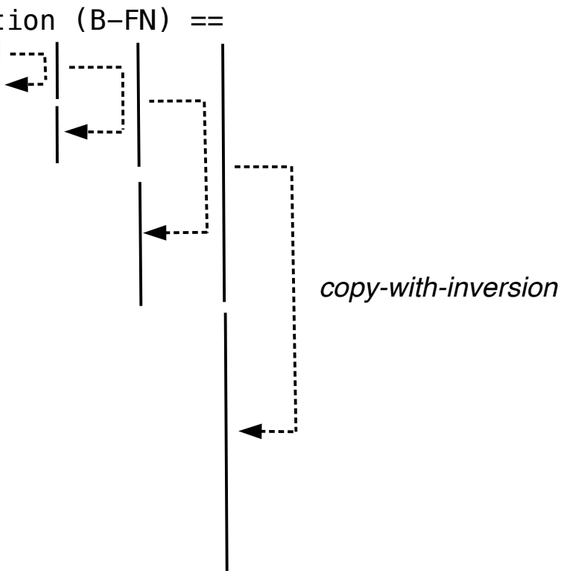



```
== Ternary Function (T-FN) ==
0000. 0000 -> 1
0001. 0001 -> 0
0002. 0010 -> 0
0003. 0011 -> 1
0004. 0100 -> 0
0005. 0101 -> 1
0006. 0110 -> 1
0007. 0111 -> 0
0008. 1000 -> 0
0009. 1001 -> 1
0010. 1010 -> 1
0011. 1011 -> 0
0012. 1100 -> 1
0013. 1101 -> 0
0014. 1110 -> 0
0015. 1111 -> 1
```

maximal compression: number of ternary rules = number of boolean rules = 2^4 = 16; boolean function is incompressible

Figure 2.3

```
== Boolean Function (B-FN) ==
0000. 0000 -> 0
0001. 0001 -> 1
0002. 0010 -> 1
0003. 0011 -> 0
0004. 0100 -> 1
0005. 0101 -> 0
0006. 0110 -> 0
0007. 0111 -> 1
0008. 1000 -> 1
0009. 1001 -> 0
0010. 1010 -> 0
0011. 1011 -> 1
0012. 1100 -> 0
0013. 1101 -> 1
0014. 1110 -> 1
0015. 1111 -> 0
```



copy-with-inversion