

$$F(A, B, C) = \sum m(1, 2, 5, 6, 7)$$

NEW FUNCTION

2. Finding Prime Implicants

Group	Decimal	Binary
0	1	001 ✓
0	2	010 ✓
1	5	101 ✓
1	6	110 ✓
2	7	111 ✓

3. Finding Prime Implicants

Group	Decimal	Binary
0	1, 5	-01 ✱
0	2, 6	-10 ✱
1	5, 7	1-1 ✱
1	6, 7	11- ✱

The Prime Implicants Are

B'C, BC', AC, AB

5. Prime Implicants Chart

Minterms	1	2	5	6	7	Cost
B'C	X		X			4
BC'		X		X		4
AC			X		X	3
AB				X	X	3

6. Finding Unique Minterms

Minterms	1	2	5	6	7	Cost
B'C	X		X			4
BC'		X		X		4
AC			X		X	3
AB				X	X	3

7. Prime Implicants Chart

Minterms	7	Cost
AC	X	3
AB	X	3

The Essential Implicants Are  
 $B'C, BC'$

## 9. Applying Petrick Method

Let  $p1 = AC$

Let  $p2 = AB$

$(p1 + p2)$

Possible Function Minimizations

$$F = B'C + BC' + AC$$

$$F = B'C + BC' + AB$$