

Figure 1 shows a sequence of 24 Karnaugh maps illustrating the step-by-step construction of a 5-variable logic function. The maps are arranged in a grid, with each map showing the addition of a new variable ( $X_4$  or  $X_5$ ) to the previous map. The maps are labeled with their respective variables and the resulting function expression.

The sequence of maps is as follows:

- Map 1:  $X_1X_0$  (2 variables)
- Map 2:  $X_1X_0$  (2 variables)
- Map 3:  $X_1X_0$  (2 variables)
- Map 4:  $X_1X_0$  (2 variables)
- Map 5:  $X_1X_0$  (2 variables)
- Map 6:  $X_1X_0$  (2 variables)
- Map 7:  $X_1X_0$  (2 variables)
- Map 8:  $X_1X_0$  (2 variables)
- Map 9:  $X_1X_0$  (2 variables)
- Map 10:  $X_1X_0$  (2 variables)
- Map 11:  $X_1X_0$  (2 variables)
- Map 12:  $X_1X_0$  (2 variables)
- Map 13:  $X_1X_0$  (2 variables)
- Map 14:  $X_1X_0$  (2 variables)
- Map 15:  $X_1X_0$  (2 variables)
- Map 16:  $X_1X_0$  (2 variables)
- Map 17:  $X_1X_0$  (2 variables)
- Map 18:  $X_1X_0$  (2 variables)
- Map 19:  $X_1X_0$  (2 variables)
- Map 20:  $X_1X_0$  (2 variables)
- Map 21:  $X_1X_0$  (2 variables)
- Map 22:  $X_1X_0$  (2 variables)
- Map 23:  $X_1X_0$  (2 variables)
- Map 24:  $X_1X_0$  (2 variables)