Simplify the following Boolean functions, using three-variable maps:

1. \( \bar{F}(x, y, z) = \Sigma(0, 2, 4, 5) \)
2. \( F(x, y, z) = \Sigma(0, 2, 4, 5, 6) \)
3. \( F(x, y, z) = \Sigma(0, 1, 2, 3, 5) \)
4. \( F(x, y, z) = \Sigma(1, 2, 3, 7) \)

Simplify the following Boolean functions, using four-variable maps:

5. \( F(w, x, y, z) = \Sigma(1, 4, 5, 6, 12, 14, 15) \)
6. \( F(A, B, C, D) = \Sigma(2, 3, 6, 7, 12, 13, 14) \)
7. \( F(w, x, y, z) = \Sigma(1, 3, 4, 5, 6, 7, 9, 11, 13, 15) \)
8. \( F(A, B, C, D) = \Sigma(0, 2, 4, 5, 6, 7, 8, 10, 13, 15) \)

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