Digital Logic Basics

Simplify the follow using a K-map

$$1. xy + x'y'z' + x'yz'$$

$$2. \ x'y + yz' + y'z'$$

3.
$$F(x, y, z) = \sum (0, 2, 4, 5)$$

4.
$$F(x, y, z) = \sum (1, 2, 3, 7)$$

5.
$$A'B'C'D' + AC'D' + B'CD' + A'BCD + BC'D$$

6.
$$F(w, x, y, z) = \sum (1, 3, 4, 5, 6, 7, 9, 11, 13, 15)$$