

as, $x + x'y = x + y$ i

i)

$$A + A'B'C + A'B'D' + A'D'C$$

$$= A + BC + A'B'D' + A'D'C$$

Commutation

$$= BC + \underline{A + A'B'D'} + A'D'C$$
i

$$= BC + A + B'D' + A'D'C$$

$$= BC + B'D' + \underline{A + A'D'C}$$
i

$$= BC + B'D' + A + CD$$

$$= BC + CD + B'D' + A$$

$$= C(B + D) + B'D' + A$$

$$= C \overline{B'D'} + B'D' + A$$

De Morgan

$$= B'D' + C + A$$

$$= (B + D)' + C + A$$

