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Power Sets ($n \leq 6$)

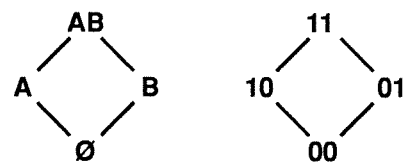
For a set of n elements, the power set is the collection of all of its 2^n subsets, including the set itself and the empty set. The power sets below are shown in the form of a partially-ordered-set (poset) graph, in which an edge connects two sets if the lower is an immediate subset of the upper. Subsets of the same size appear on the same level.

Power sets have the same structure as the n -cubes (Q_n), in which the vertices are binary n -strings, and an edge connects two strings if they differ by exactly one digit. Note the familiar "cube" for $n = 3$.

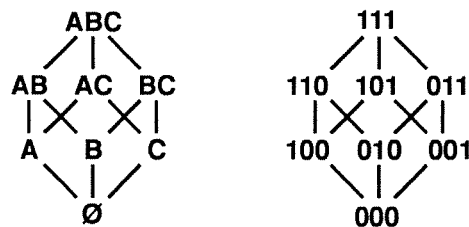
$n = 1$ Q_1 , 1-cube, subsets of $\{A\}$



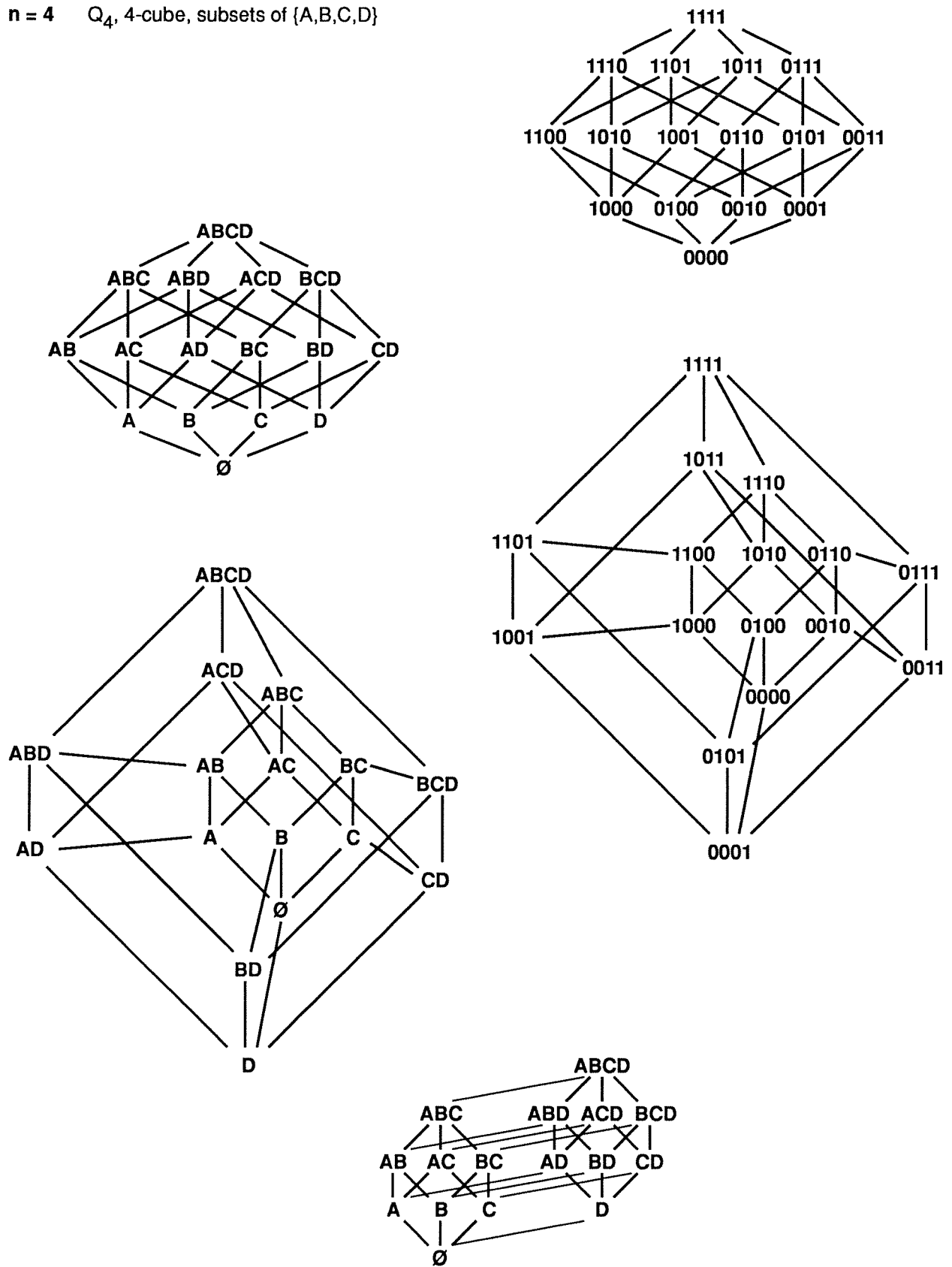
$n = 2$ Q_2 , 2-cube, subsets of $\{A,B\}$



$n = 3$ Q_3 , 3-cube, subsets of $\{A,B,C\}$



$n = 4$ Q_4 , 4-cube, subsets of $\{A,B,C,D\}$



$n = 5$ Q_5 , 5-cube, subsets of $\{A,B,C,D,E\}$

