

The image contains two diagrams illustrating the relationship between a set S and its power set $\mathcal{P}(S)$.

Left Diagram: A set S is represented by a large circle containing several small circles (elements). A smaller circle, representing a subset, is shown inside S . An arrow points from this subset to a larger circle representing the power set $\mathcal{P}(S)$, which contains the subset and other possible subsets.

Right Diagram: A set S is represented by a large circle containing several small circles (elements). A smaller circle, representing a subset, is shown inside S . An arrow points from this subset to a larger circle representing the power set $\mathcal{P}(S)$, which contains the subset and other possible subsets, including the empty set and S itself.