THEORIES OF VENN DIAGRAMS

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Annotation: This article provides an overview and complete structure of the Venn diagram, highlighting its key characteristics, stages, and its origin as a visual model from the perspective of scholars.

Keywords: Structure of Venn diagrams, types, history of origin, evolution, and forms.

A **Venn diagram** is a two-dimensional visual model of information that many people use to compare and contrast things. John Venn invented the Venn diagram in 1880, and it is still used today. Additionally, a Venn diagram consists of two circles, each representing a specific topic. A basic Venn diagram is a clear circle, but sometimes teachers add labels to help quickly understand a topic or lesson. Venn diagrams can be presented in various forms. In this article, we will show you the best examples of Venn diagram templates. You will also learn about the best tools for creating Venn diagrams.

Venn diagrams are often used in presentations, especially in schools and offices. Venn diagrams, which demonstrate relationships between two subjects or topics, are highly significant today. However, some people need to learn more about Venn diagrams and find them challenging to construct. Since they are important, we have listed all the necessary information about Venn diagrams. Thus, read this guide to learn more about descriptions, purposes, characteristics, and the best Venn diagram creators, as well as how to create a Venn diagram easily.

An **Euler diagram** (Venn diagram) is a tool used to illustrate sets and their relationships. Euler diagrams are usually represented by circles and were invented by

Euler. They are applied in mathematics, logic, management, and other practical fields. The first recorded use of an "Euler diagram" is generally attributed to Swiss mathematician Leonhard Euler (1707–1783).

In the United States, Venn and Euler diagrams were introduced as part of teaching set theory during the New Math Movement in the 1960s. Since then, they have been adopted by other educational programs, such as reading instruction, as well as by organizations and businesses.

An Euler diagram consists of simple closed shapes in a two-dimensional plane, each representing a set or category. Arranging these patterns illustrates the relationships between the sets. Each curve divides the plane into two regions or "zones." This tool is mainly used to visually express similarities and differences between two main topics to facilitate study.

A Venn diagram typically consists of two or three circles. Congruent circles share common characteristics, while non-congruent circles do not share the same properties. Today, the Venn diagram is used in business and many academic fields as a model. You often see diagrams with two or three circles. But did you know you can also create a **four-circle Venn diagram**?

A four-circle Venn diagram is a visual representation that can be used to show or describe four different topics or groups. It highlights related concepts. The four circles you see represent four distinct topics or groups, and the overlapping areas of the circles are connection points.

A Venn diagram is a graphical format used to summarize and draw conclusions from obtained results, analyze, and study two or more topics (appearance, fact, concept). The diagram is created by overlapping two or more circles.

The intersection of sets corresponds to the intersection of figures from a geometric point of view. Below, the intersection of sets is shaded for each case.
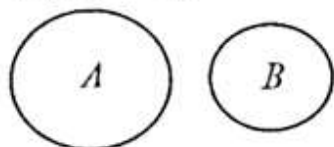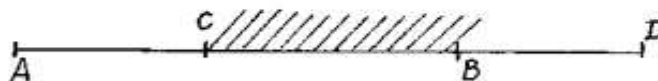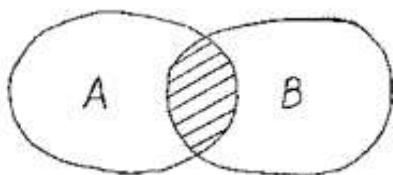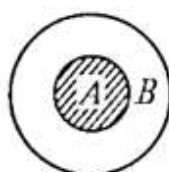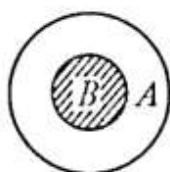
I. $A \cap B = \varnothing$

II. $A \cap B \neq \varnothing$
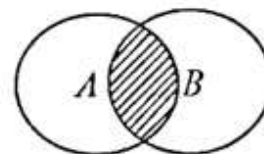
III. a) $A \cap B = B$ b) $A \cap B = A$

IV. $A \cap B = A = B$

$A = B$

Set association Given and the combination of sets we say a set made up of all the elements in each of these and these sets. It is defined in association or form.

Since each element must be taken only once in the combination of sets, the common elements of each of the sets are taken only once in the total.

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