

A typical **Venn diagram** looks like the picture below. A Venn diagram is a way of grouping different parts of data known as **sets**. Drawing Venn diagrams is relatively simple as shown below.

Example: We have the numbers $\{1,2,3,4,5,6,7,8,9,10,11\}$ and $\{1,2,3,4,5,6,7,8,9,10,11\}$. Put the odd numbers in *AA* and prime numbers in *BB*. Draw a Venn diagram for this information.

Step 1: Identify numbers that are odd: $\{1,3,5,7,9,11\}$ and numbers that are prime: $\{2,3,5,7,11\}$. There's some crossover here: $\{3,5,7,11\}$ are contained in **both**, which means they go in the intersection.

Step 2: Numbers that are odd but aren't prime: 11 and 99. These will go in the part of section *AA* that doesn't intersect with *BB*.

Numbers that are prime but aren't odd: 2. These will go in the part of circle *BB* that doesn't intersect with *AA*.

Step 3: All the numbers that are neither odd nor prime: 4, 6, 8, and 10, will go inside the rectangle but outside either circle.

The result is the Venn diagram shown.