Example

Refer to the Venn diagram for events $A$ and $B$ in an equally likely sample space $S$. Find $P(A \cap B)$.

\[
\begin{array}{c}
\text{U} \\
\text{21} & \text{11} & \text{22} \\
\text{46}
\end{array}
\]

**SOLUTION:**

Since there are 11 elements in $A \cap B$, then $P(A \cap B) = \frac{11}{21 + 11 + 22 + 46} = \frac{11}{100} = 0.11$. 