

Example Find $A \cup (B \cap C)$.

Just like in arithmetic, we perform the operation in parenthesis first.

$$B \cap C = \{i, r, e\}$$

Now let's join that with A.

$$\{r, i, c, k\} \cup \{i, r, e\} = \{r, i, c, k, e\}, \text{ therefore}$$

$$A \cup (B \cap C) = \{r, i, c, k, e\}$$