

## **SET UNIONS AND INTERSECTIONS**

## Why

We study how intersection and union interact.

## Results

The following are easy results. They are known as the distributive laws.

**Proposition 1.** 
$$A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$$

**Proposition 2.** 
$$A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$$

<sup>&</sup>lt;sup>1</sup>The accounts will appear in future editions.

