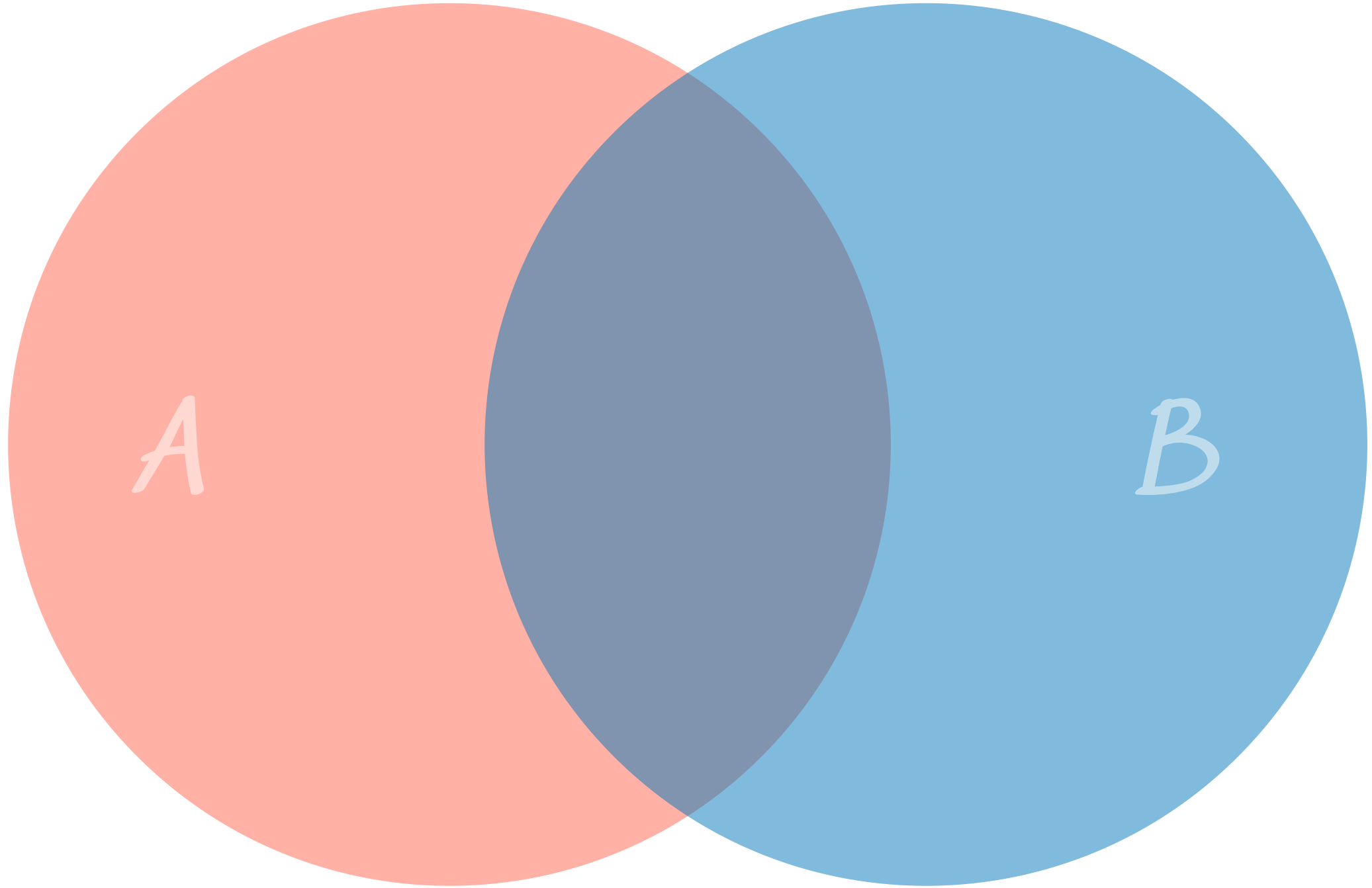


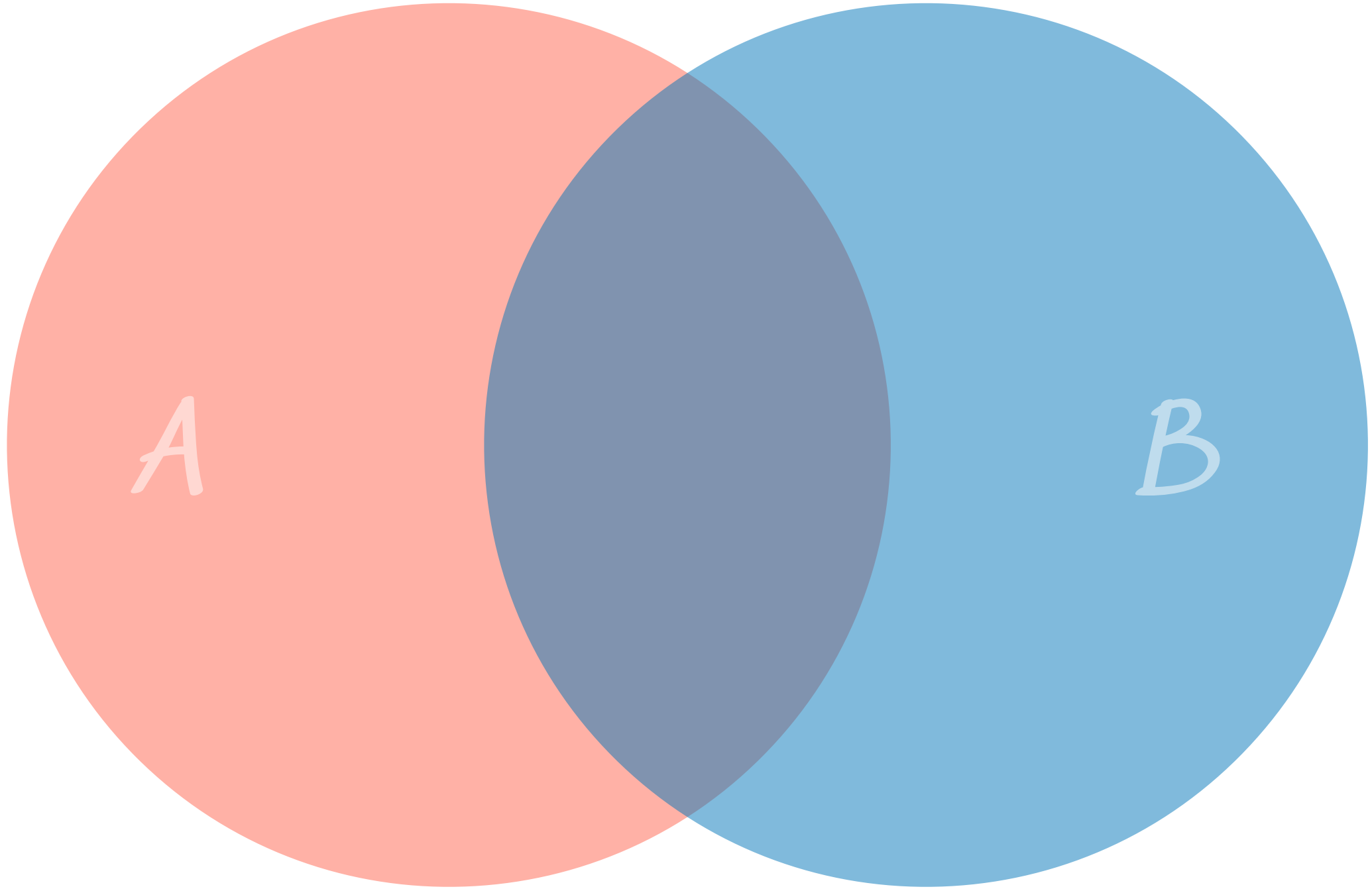
set apart with ven diagrams





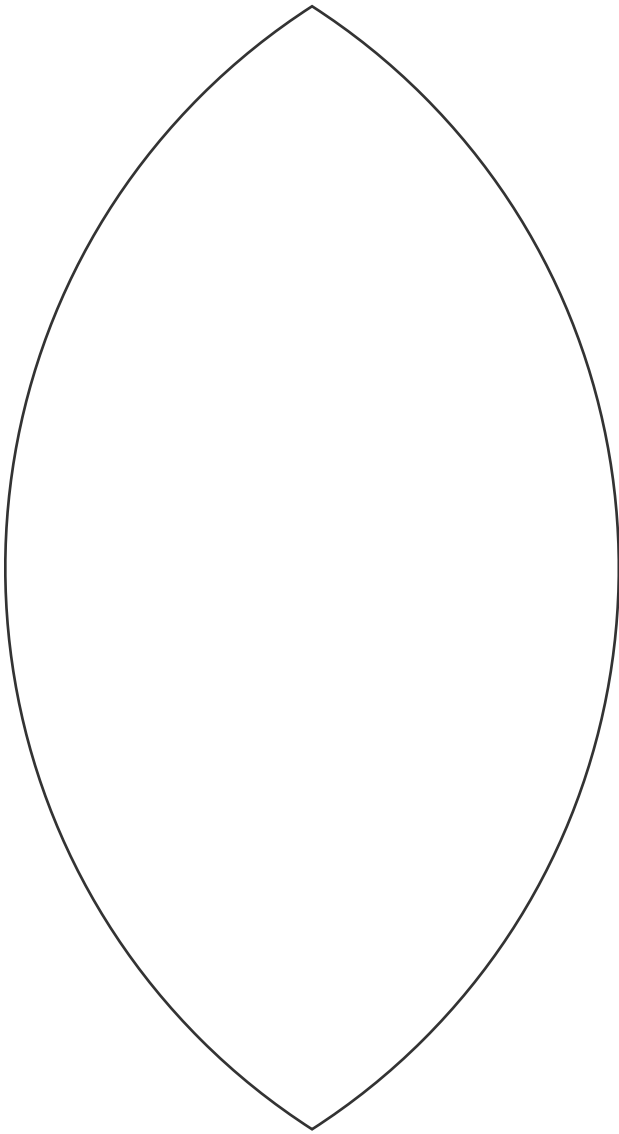
A Venn diagram consisting of two overlapping circles. The entire area covered by both circles is filled with a solid red color. The text $A \cup B$ is written in white, italicized font within the left circle.

$A \cup B$





A ∩ B



set operators with Venn diagrams



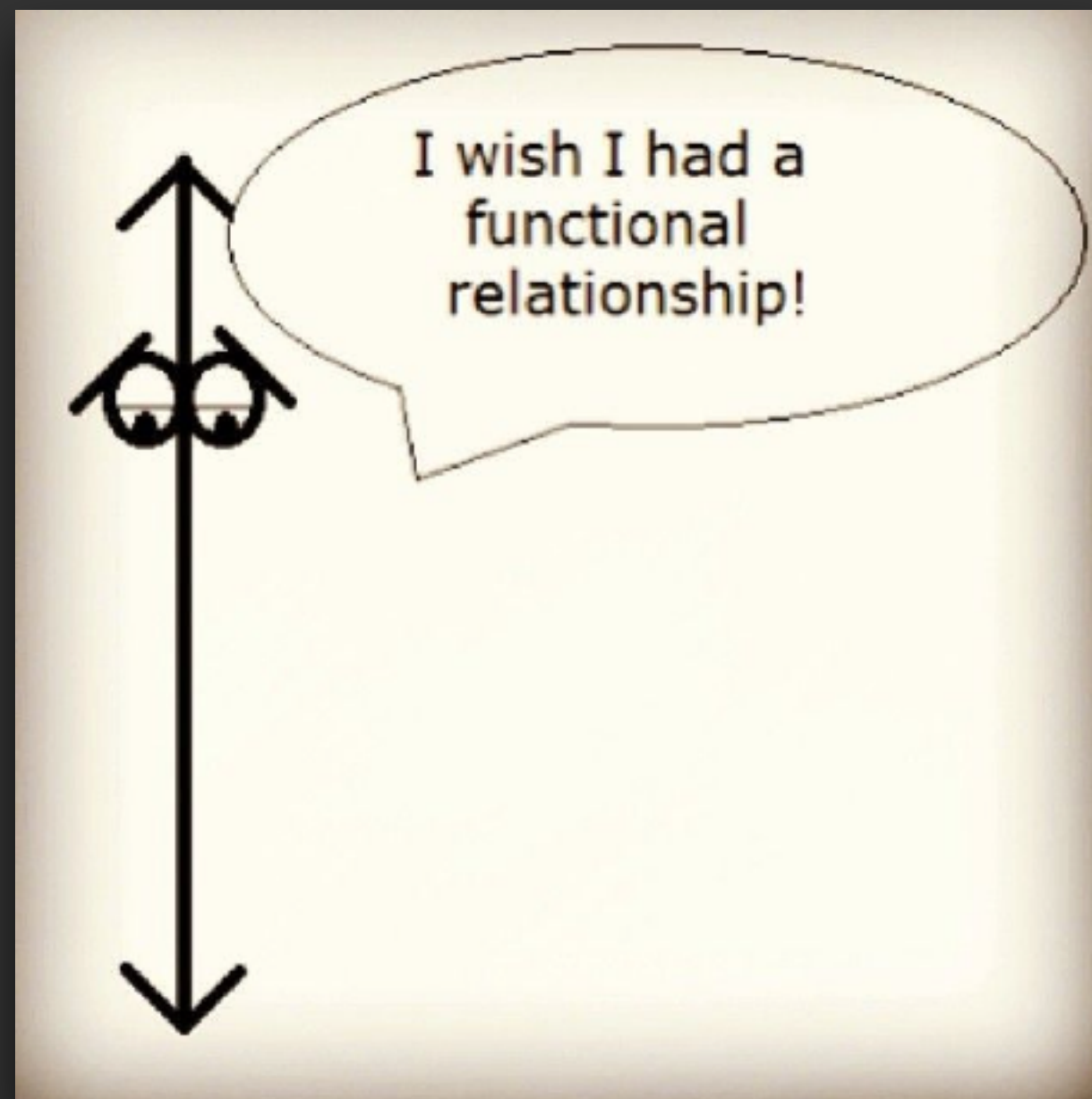
cardinality of the set union

$$|A \cup B| = |A| + |B| - |A \cap B|$$

relations and functions

used to compare concepts and uncover relationships between them

- a relation is a relationship between sets of information
- a function is a well-behaved relation



more on this in lecture 3...