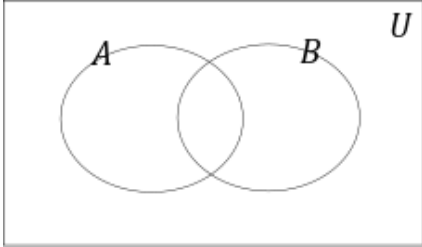
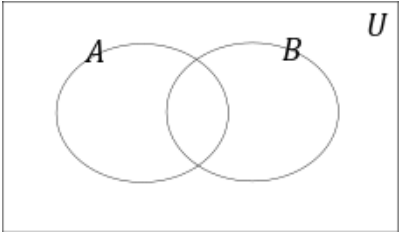


## Set and operations

**Task.** You are given two sets  $A$  and  $B$  in a universe  $U$ .

Fill in the Venn diagram and determine the sets  $A \cup B$ ,  $A \cap B$ ,  $A - B$ ,  $B - A$ ,  $A'$ ,  $B'$ .

|              | (a)                                                                                | (b)                                                                                |
|--------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Universe     | $U = \{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$                                         | $U = \{1, 2, 3, 4, 5, 6\}$                                                         |
| Set $A$      | $A = \{0, 3, 6, 9\}$                                                               | $A = \{1, 2\}$                                                                     |
| Set $B$      | $B = \{2, 4, 6, 8, 10\}$                                                           | $B = \{1, 2, 3\}$                                                                  |
| Venn Diagram |  |  |
| Union        | $A \cup B =$                                                                       | $A \cup B =$                                                                       |
| Intersection | $A \cap B =$                                                                       | $A \cap B =$                                                                       |
| Difference   | $A - B =$                                                                          | $A - B =$                                                                          |
| Difference   | $B - A =$                                                                          | $B - A =$                                                                          |
| Complement   | $A' =$                                                                             | $A' =$                                                                             |
| Complement   | $B' =$                                                                             | $B' =$                                                                             |