Set theory questions

Problem 1 Let $S = \{1,2,3,4,5,6\}$, $A = \{1,3,4,5\}$, $B = \{2,3,5\}$.
(i) Find $A \cup B$
(ii) Find $A \cap B$
(iii) Find $A \Delta B$
(iv) Find $\bar{A}$
(v) Illustrate DeMorgan's law, by finding $\overline{A \cup B}$ and $\bar{A} \cap \bar{B}$, and $\overline{A \cap B}$ and $\bar{A} \cup \bar{B}$.
(vi) Find $A - B$

Problem 2 Let A,B, and C be the sets of points inside the circles indicated below: Shade the following sets in a Venn diagram: (Make a new Venn-diagram for each problem).
(i) $A \cup B$
(ii) $A \cap B$
(iii) $A \Delta B$
(iv) $A \cap B \cap C$
(v) $C \cap (A \cup B)$
(vi) $(C \cap A) \cup (C \cup B)$