

(a)

$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$
$$= 0.6 + 0.8 - 0.5 = 0.9$$

(b)

$$P((A \cap B^c) \cup (B \cap A^c)) = P(A) + P(B) - 2P(A \cap B)$$
$$= 0.6 + 0.8 - 0.5 \cdot 2 = 0.4$$