2.3.2) Let A and B be any events in the sample space S. Suppose that $P(A) = 0.4$, $P(B) = 0.5$, and $P(A \cap B) = 0.1$. What is the probability that A or B but not both occur?

We are looking for $P(A \cup B) - P(A \cap B)$

$P(A \cup B) = P(A) + P(B) - P(A \cap B) = 0.4 + 0.5 - 0.1 = 0.8$

$P(A \cup B) - P(A \cap B) = 0.8 - 0.1 = 0.7$