Two events A and B have probabilities 0.25 and 0.50 respectively. The probability that both A and B occur simultaneously is 0.14. Then the probability that neither A nor B occurs is **(1980)**

(a) 0.39   (b) 0.25   (c) 0.11   (d) none of these

$$P(A \cup B) = P(A) + P(B) - P(A \cap B)$$
$$= 0.25 + 0.50 - 0.14 = 0.61$$
$$\therefore \quad P(A' \cap B') = P((A \cup B)') = 1 - P(A \cup B)$$
$$= 1 - 0.61 = 0.39$$