3. Solution: D

First note

$$P[A \cup B] = P[A] + P[B] - P[A \cap B]$$

$$P[A \cup B'] = P[A] + P[B'] - P[A \cap B']$$

Then add these two equations to get

$$P[A \cup B] + P[A \cup B'] = 2P[A] + \left(P[B] + P[B']\right) - \left(P[A \cap B] + P[A \cap B']\right)$$

$$0.7 + 0.9 = 2P[A] + 1 - P\left[(A \cap B) \cup (A \cap B')\right]$$

$$1.6 = 2P[A] + 1 - P[A]$$

$$P[A] = 0.6$$