

5 In question 64 (above), $P(B/A')$ is equal to

(a) $\frac{1}{5}$

(b) $\frac{3}{10}$

(c) $\frac{1}{2}$

(d) $\frac{3}{5}$

$$\begin{aligned} P(B/A') &= \frac{P(B \cap A')}{P(A')} = \frac{P(B) - P(B \cap A)}{1 - P(A)} \\ &= \frac{\frac{3}{5} - \frac{3}{10}}{1 - \frac{1}{2}} = \frac{\frac{6-3}{10}}{\frac{1}{2}} = \frac{6}{10} = \frac{3}{5} \end{aligned}$$