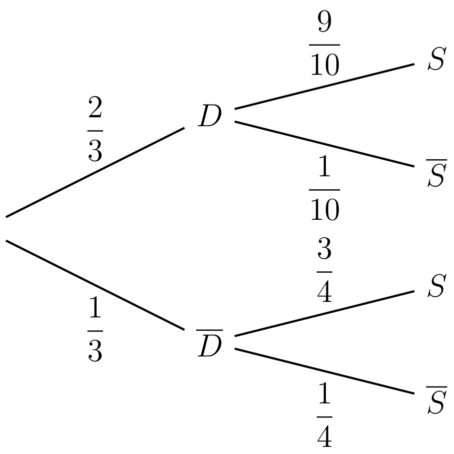
1.

$p(\overline{D}) = 1 - p(D) = 1 - \dfrac{2}{3} = \dfrac{1}{3}$.

2.



3.

$p(\overline{D} \cap S) = p(\overline{D}) \times p_{\overline{D}}(S) = \dfrac{1}{3} \times \dfrac{3}{4} = \dfrac{1}{4}$.

4.

D'après la loi des probabilités totales :

$$\begin{aligned} p(S) &= p(D \cap S) + p(\overline{D} \cap S) \\ &= \frac{2}{3} \times \frac{9}{10} + \frac{1}{4} \\ &= \frac{3 \times 4 + 1 \times 5}{4 \times 5} \\ &= \frac{17}{20} \\ &= 0{,}85. \end{aligned}$$

5.

On calcule :

$$p_S(\overline{D}) = \frac{p(S \cap \overline{D})}{p(S)} = \frac{p(\overline{D} \cap S)}{p(S)} = \frac{\frac{1}{4}}{\frac{3}{5}} = \frac{5}{12}.$$