From Prompt

$P(D) = .01$

$P(A|D) = .95$

$P(A^c|D^c) = .931$

Complements →

$P(D^c) = .99$

$P(A^c|D) = .05$

$P(A|D^c) = .069$

* We want: $P(D|A) = \dfrac{P(A \text{ and } D)}{P(A)}$] Conditional Prob'y Rule

(1) Find $P(A) = P(A \text{ and } D) + P(A \text{ and } D^c)$] By Law of total probability

$= P(A|D)P(D) + P(A|D^c)P(D^c)$

$= .95(.01) + .069(.99)$

$\approx .0095 + .068$

$= .0775$

(2) Plug $P(A)$ into *

$P(D|A) = \dfrac{.0095}{.0775}$

$\approx .123$

When testing the general population, only about 12% of those who test positive for COVID actually have COVID.