

$$9. P(D|T) = \frac{P(T|D) \cdot P(D)}{P(T)}$$

$$P(D) = 0.01$$

$$P(D') = 0.99$$

$$P(T|D) = 0.95$$

$$P(T|D') = 0.05$$

$$P(T) = [P(T|D) \cdot P(D)] + [P(T|D') \cdot P(D')]$$

$$= [0.95 \times 0.01] + [0.05 \times 0.99]$$

$$P(T) = 0.059$$

$$P(D|T) = \frac{0.95 \times 0.01}{0.059}$$

$$\boxed{P(D|T) = 0.161}$$