2.22: Let event S represent "sick (has thrombosis)", and let event T represent "positive test". We are told the following:

$$P(S) = 0.03$$
$$P(T|S) = 0.99$$
$$P(T^c|S^c) = 0.98$$

We are asked to evaluate $P(S|T)$. We can start by determining some other probabilities.

$$P(S^c) = 1 - P(S) = 1 - 0.03 = \boxed{0.97}$$
$$P(T^c|S) = 1 - P(T|S) = 1 - 0.99 = \boxed{0.01}$$
$$P(T|S^c) = 1 - P(T^c|S^c) = 1 - 0.98 = \boxed{0.02}$$
$$P(S \text{ AND } T) = P(S) \cdot P(T|S) = 0.03 \times 0.99 = \boxed{0.0297}$$
$$P(S \text{ AND } T^c) = P(S) \cdot P(T^c|S) = 0.03 \times 0.01 = \boxed{0.003}$$
$$P(S^c \text{ AND } T^c) = P(S^c) \cdot P(T^c|S^c) = 0.97 \times 0.98 = \boxed{0.9506}$$