2. a)

$$P(R) = P(R/1,2) \cdot P(1,2) + P(R/3,4,5,6) \cdot P(3,4,5,6)$$

$$= \frac{3}{10} \cdot \frac{2}{6} + \frac{6}{10} \cdot \frac{4}{6} = \frac{1}{10} + \frac{4}{10} = \frac{5}{10} = 0,5$$

b) $$P(N) = P(N/1,2)\, P(1,2) + P(N/3,4,5,6) \cdot P(3,4,5,6)$$

$$= \frac{1}{10} \cdot \frac{2}{6} + \frac{2}{10} \cdot \frac{4}{6} = \frac{1}{30} + \frac{4}{30} = \frac{5}{30} = \frac{1}{6}$$

c) $$P(1/N) = \frac{P(1 \cap N)}{P(N)} = \frac{P(1) \cdot P(N/1)}{P(N)} = \frac{\frac{2}{6} \cdot \frac{1}{10}}{1/6} = \frac{2}{10} = \frac{1}{5}$$

d) $$P(2/N) = \frac{P(2 \cap N)}{P(N)} = \frac{P(2) \cdot P(N/2)}{P(N)} = \frac{4/6 \cdot \frac{2}{10}}{1/6} = \frac{8}{10} = \frac{4}{5}$$