

Which Color Has the Highest Probability?

Plugging in,

$$\text{prob}(R|N \text{ AND } I \text{ AND } F) \approx$$

$$(14/27) \times (24/27) \times (4/27) \times (27/200) = \mathbf{0.00922}$$

Similarly,

$$\text{prob}(B|N \text{ AND } I \text{ AND } F) \approx$$

$$(11/27) \times (18/27) \times (16/27) \times (27/200) = \mathbf{0.0217}$$

$$\text{prob}(W|N \text{ AND } I \text{ AND } F) \approx$$

$$(17/83) \times (65/83) \times (12/83) \times (83/200) = \mathbf{0.00962}$$

$$\text{prob}(G|N \text{ AND } I \text{ AND } F) \approx$$

$$(22/63) \times (38/63) \times (8/63) \times (63/200) = \mathbf{0.00843}$$

The largest! So Pat guesses that Jan's car is blue.