Information Gain

$$\text{entropy (flat)} = 0 \leftarrow$$

$$P_{slow} = \frac{2}{3} \qquad P_{fast} = \frac{1}{3}$$

$$\text{information gain} = \text{entropy (parent)} - \begin{bmatrix} \text{weighted} \\ \text{average} \end{bmatrix} \text{entropy (children)}$$

grade	bumpiness	speed limit	speed
steep	bumpy	yes	slow
steep	smooth	yes	slow
flat	bumpy	no	fast
steep	smooth	no	fast

$$\text{entropy of parent} = 1.0$$

$$\text{entropy} = \sum_i -P_i \log_2 P_i$$

$$\text{entropy (children)} = \frac{3}{4}(0.9184) + \frac{1}{4}(0)$$

0.3112

View Intro

VIEW ANSWER

SUBMIT ANSWER