

A Quicker way to Predict

Recall Friday

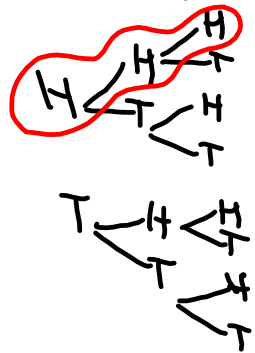
$P(3 \text{ Heads in a Row}) = \frac{1}{8}$ (desired) / (total outcomes)

$P(H) \times P(H) \times P(H)$

$= \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2}$

$= \frac{1}{8}$

(Note: In the original image, the two $\frac{1}{2}$ terms in the second equation are circled in blue with an 'X' through them, indicating they should not be multiplied together in this context.)



What if you had a coin (H/T) and a trick die (1, 2, 3, 4, 4, 4)

$$\begin{aligned}
 P(H \text{ and } 3) &= P(H) \times P(3) \\
 &= \frac{1}{2} \times \frac{1}{6} \\
 &= \frac{1}{12}
 \end{aligned}$$

$$P(T \text{ and } 4) = P(T) \times P(4)$$

$$\begin{aligned}
 &= \frac{1}{2} \times \frac{3}{6} \\
 &= \frac{3}{12} \\
 &= \frac{1}{4}
 \end{aligned}
 \left. \vphantom{\begin{aligned} &= \frac{1}{2} \times \frac{3}{6} \\ &= \frac{3}{12} \\ &= \frac{1}{4} \end{aligned}} \right\} \frac{1}{2} \times \frac{1}{2}$$

Prob in Real life

a lot of prob in real life is in % . for example, there's a 60% chance of snowfall for tomorrow

convert to fraction $\frac{60}{100} = \frac{6}{10}$
 $= \frac{3}{5}$

This means

$-\frac{2}{5}$ chance won't snow

-based on past experience 3 of 5 days in the past when weather looked like this it snowed.

ex2: A poll with 225 voters saw 40% in favor no uniforms, how many voted for no uniforms?

turn into decimal \leftarrow 40% of 225
 $\frac{40}{100} \rightarrow = 0.4 \times 225$
 $= 90$

Work

p 129 # 7, 8, 9 bc, 11, 13, 17

Word prob p 136-137 # 6-8, 11, 13

Review p 138 # 1-4
 # 1-4
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