**Batman and Spiderman's Probability Problems - Answers**

Batman and Spiderman have lots of people who want to get rid of them, but some are more dangerous than others, so he has to pick and choose who to battle against to keep the public as safe as possible.

Each makes their decision independently, meaning that a previous fight doesn't affect who he chooses to fight next.

Batman gives each choice a fractional or decimal value that adds up to 1, whereas Spiderman uses a similar system but with decimals.

 



Battle 2:

$$\frac{3}{12}=\frac{1}{4}$$

Battle 1:

$$\frac{6}{12}=\frac{1}{2}$$



Battle 1:

$$\frac{12}{25}$$

Battle 2:

$$\frac{2}{25}$$



Battle 2:

$$\frac{6}{21}=\frac{2}{7}$$

Battle 3:

$$\frac{15}{21}=\frac{5}{7}$$

Battle 1:

$$\frac{8}{21}$$



Battle 2:

$$\frac{6}{30}=\frac{1}{5}$$

Battle 3:

$$\frac{15}{30}=\frac{1}{2}$$

Battle 1:

$$\frac{6}{30}=\frac{1}{5}$$



Battle 2:

0.42

Battle 1:

0.12



Battle 2:

0.28

Battle 1:

0.72



Battle 2:

0.485

Battle 1:

0.3575



Battle 2:

0.57

Battle 1:

0.12