

Probability & Number of Ignitions

Probability is the chance that an event will happen and is expressed in terms of percent, or per 100. For example, if there is a 40 percent chance of a spot fire starting, that means that out of 100 glowing embers that fly off, 40 embers will likely start spot fires, and 60 will not. Percent is calculated by changing the percent into a fraction by dividing by 100, then multiplying by the total number of possible situations.

Example 1 - The probability of ignition is 80 percent. How many ignitions are likely to occur if 90 glowing firebrands land on receptive fuel?

Step 1. Change 80 percent to a fraction, $80/100$ and then into a decimal. $80/100 = 0.80$

Step 2. Multiply by the total number of situations, in this case glowing firebrands. $0.8 \times 90 = 72$

Expect 72 ignitions out of 90 glowing firebrands.