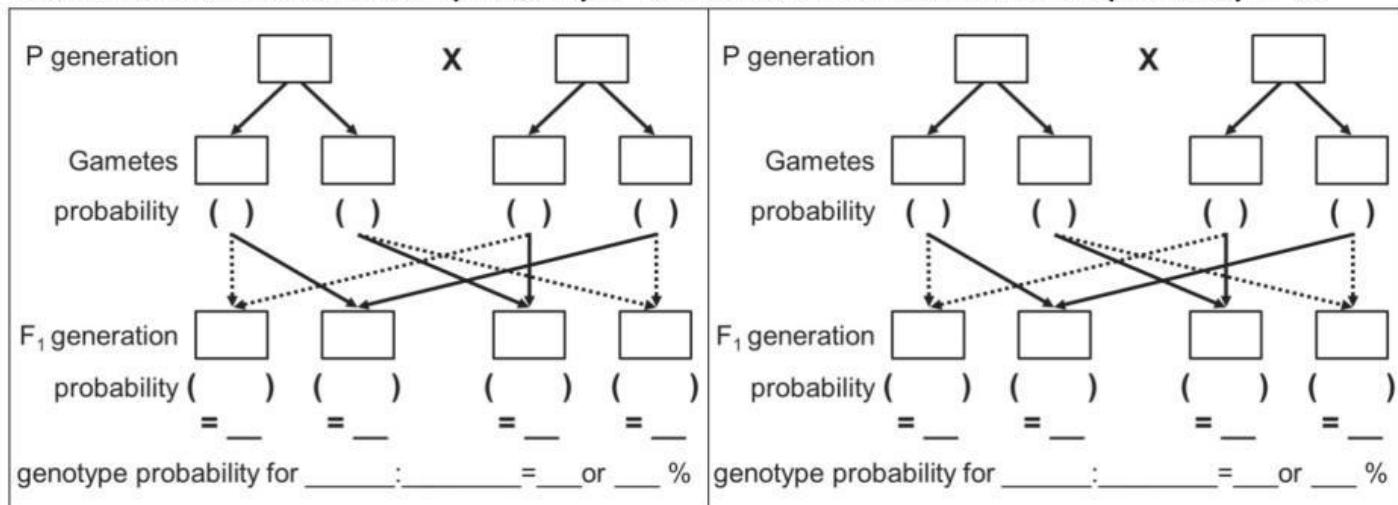


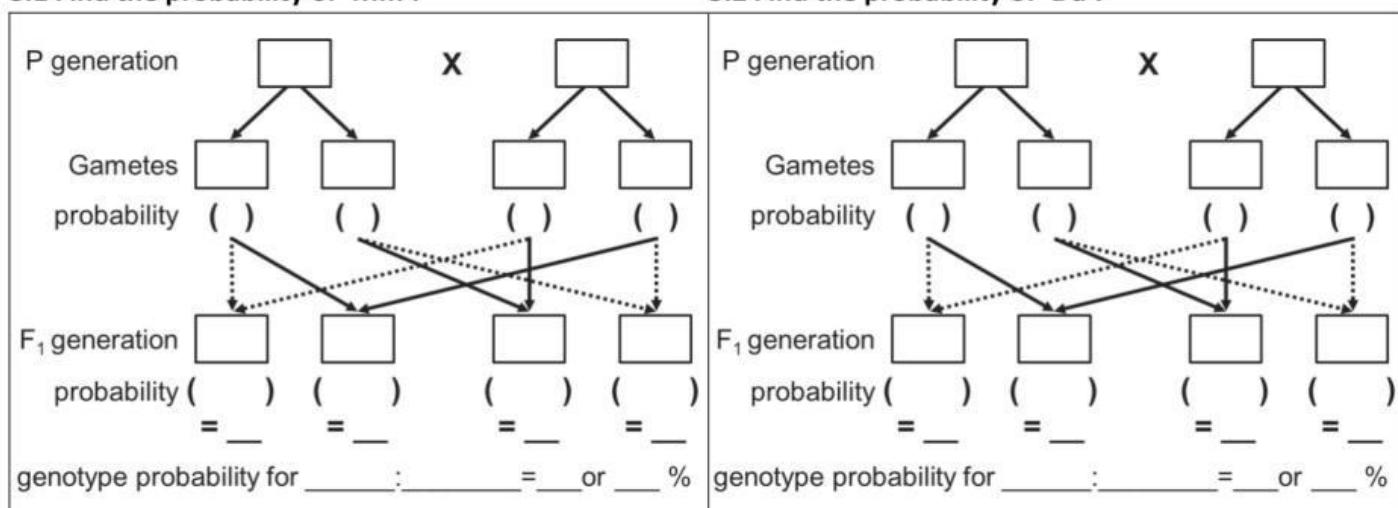


## Rules of Probability: Product and Sum

1. Use the Product Rule to find the probability of 'DD'. 2. Use the Sum Rule to find the probability of 'dd'



3.1 Find the probability of 'Mm'.



3.3: Find the probability of 'Mm' and 'Dd'.

Probability calculation:	1. genotype of trait 1: _____ ( x or + ) genotype of trait 2 _____
	2. probability of trait 1: _____ probability of trait 2: _____
	3. probability of trait 1 and trait 2: _____ or _____ %



4. Use a Test Cross to find an unknown allele of a dominant Parent 1 if Parent 2 is homozygous recessive.

<p><b>Parent 1 has a long tail</b></p> <p>Genotype: _____, Phenotype: _____</p> <p><b>Parent 1:</b> If the unknown allele is _____, then</p> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="width: 10px; height: 10px;">Parent 1</td><td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td></tr> <tr> <td style="width: 10px; height: 10px;">Parent 2</td><td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td></tr> <tr> <td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td></tr> <tr> <td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td></tr> </table> <p>Offspring: _____</p> <p>Genotype ratio is _____:_____, Phenotype: _____</p> <p>∴ <b>Parent 1</b> is _____</p>	Parent 1			Parent 2									<p><b>Parent 2 has a short tail</b></p> <p>Genotype: _____, Phenotype: _____</p> <p><b>Parent 1:</b> If the unknown allele is _____, then</p> <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td style="width: 10px; height: 10px;">Parent 1</td><td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td></tr> <tr> <td style="width: 10px; height: 10px;">Parent 2</td><td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td></tr> <tr> <td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td></tr> <tr> <td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td><td style="width: 10px; height: 10px;"></td></tr> </table> <p>Offspring: _____</p> <p>Genotype ratio is _____:_____, Phenotype: _____</p> <p>∴ <b>Parent 1</b> is _____</p>	Parent 1			Parent 2								
Parent 1																									
Parent 2																									
Parent 1																									
Parent 2																									