



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'

P generation X Gametes probability () () Gametes probability () () F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ genotype probability for _____ : _____ = _ or _ %	P generation X Gametes probability () () Gametes probability () () F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ genotype probability for _____ : _____ = _ or _ %
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3.1 Find the probability of 'Mm'.

3.2 Find the probability of 'Dd'.

P generation X Gametes probability () () Gametes probability () () F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ genotype probability for _____ : _____ = _ or _ %	P generation X Gametes probability () () Gametes probability () () F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ F₁ generation probability () () = _ = _ genotype probability for _____ : _____ = _ or _ %
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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 _____ %	
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4. Use a Test Cross to find an unknown allele of a dominant Parent 1 if Parent 2 is homozygous recessive.

Parent 1 has a long tail Genotype: _____, Phenotype: _____ Parent 1: If the unknown allele is _____, then <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Parent 1 Parent 2</td> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> </tr> <tr> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> </tr> <tr> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> </tr> </table> Offspring: _____ Genotype ratio is _____:_____, Phenotype: _____ ∴ Parent 1 is _____	Parent 1 Parent 2									Parent 2 has a short tail Genotype: _____, Phenotype: _____ Parent 1: If the unknown allele is _____, then <table border="1" style="margin: 10px auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;">Parent 1 Parent 2</td> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> </tr> <tr> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> </tr> <tr> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> <td style="width: 50px; height: 30px;"></td> </tr> </table> Offspring: _____ Genotype ratio is _____:_____, Phenotype: _____ ∴ Parent 1 is _____	Parent 1 Parent 2								
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