

Student Score = 79

5. Years later, Michael (Sarah's oldest brother) and his new bride, Rebecca, began to plan for a family. Rebecca was tested for the presence of the Tay Sachs mutation because of Michael's family history.

a. Predict the probability of each genotype and phenotype in the offspring if Rebecca IS carrying a mutation for Tay Sachs.

	Genotype	Probability	Phenotype	Probability									
Rebecca	$x^T x^t$	<table border="1"> <tr> <td></td> <td>x^T</td> <td>x^t</td> </tr> <tr> <td>x^+</td> <td>$x^T x^+$</td> <td>$x^t x^+$</td> </tr> <tr> <td>y</td> <td>$x^T y$</td> <td>$x^t y$</td> </tr> </table>		x^T	x^t	x^+	$x^T x^+$	$x^t x^+$	y	$x^T y$	$x^t y$		25%
	x^T		x^t										
x^+	$x^T x^+$	$x^t x^+$											
y	$x^T y$	$x^t y$											
Michael	$x^+ y$												

Student Response

	Genotype	Probability		Phenotype	Probability
Rebecca	$x^T x^t$		x^T		25%
Michael	$x^t y$		x^t		
			x^T	$x^T x^t$	
			y	$x^t y$	