

**Punnett Square**

- **Axes:** represent possible gamete genotypes of each parent.
- **Grid boxes:** show all possible genotypes of offspring.

**Ratios:** predicted genotypic & phenotypic

- ratios can be determined from a Punnett Square
- specific ratios based on the example of **Punnett Square** used.

**Monohybrid cross:**

the inheritance of one specific trait

	T	t	Father
T	TT	Tt	Mother
t	Tt	tt	

cross between an organism with the recessive phenotype (homozygous recessive

**Testcross:** cross between an organism with the recessive phenotype (homozygous recessive genotype) and an organism with the dominant phenotype but an unknown phenotype; looking at the resulting offspring allows one to figure out the genotype of dominant organism.

**Dihybrid Cross:** examines the inheritance of two traits

**AaBb X AaBb**

	AB	Ab	aB	ab		
AB	AABB	AABb	AaBB	AaBb	9 agouti	
Ab	AABb	AAbb	AaBb	Aabb		3 black
aB	AaBB	AaBb	aaBB	aaBb		
ab	AaBb	Aabb	aaBb	aabb		4 albino

**Ratios:** predicted genotypic and

- phenotypic ratios can be determined from a **Punnett Square**
- specific ratios based on the example of **Punnett Square** used

**Law of Independent Assortment:**

developed by Mendel as a result of examining dihybrid crosses; determined that the inheritance of one trait does not influence the inheritance of a second trait

**Probability:** the likelihood that a particular event will happen; predicts the average number of occurrences; the distribution of genes in gametes and the fertilization of a particular egg.

