

KEY

1. Certain chickens display incomplete dominance with respect to feather color. There are black, splashed, or andalusian(blue) feather colors. Andalusian is the intermediate phenotype. Answer the following questions with this information in mind.

- a. What are the genotypes of the parents if the following number of offspring are produced:
- SS** 29- Splashed feather offspring
 - BS** 45- Andalusian feather offspring
 - BB** 26- Black feather offspring

BS and BS

Provide evidence to accompany your answer by using a punnet square!!

	B	S
B	BB	BS
S	BS	SS

- b. An individual with pure black feather blood line mates with an individual who has one black feather and one splashed feather parent. What are the genotypic and phenotypic ratios for the offspring of these two parents? Use a punnet square to defend your answer!!

	B	B
B	BB	BB
S	BS	BS

GENOTYPIC RATIOS/PERCENTAGES
1-BB 1-BS
PHENOTYPIC RATIOS/PERCENTAGES
1-Black 1-Andalusian

8. In some cats the gene for tail length shows incomplete dominance. Cats with long tails and cats with no tails are homozygous for their respective alleles. Cats with one long tail allele and one no tail allele have short tails. Cross two short tail cats in order to get the genotypic and phenotypic ratios for the offspring. Use a punnet square to defend your answer!!

	L	N
L	LL	LN
N	LN	NN

GENOTYPIC RATIOS/PERCENTAGES
1-LL 2-LN 1-NN
PHENOTYPIC RATIOS/PERCENTAGES
1-LONG

LL = Long
NN = NO

2- SHORT