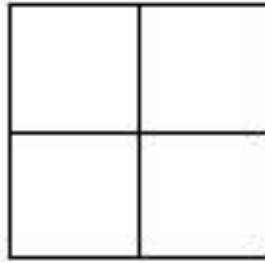


1. In Andalusian fowls, black individuals (B) and white individuals (W) are homozygous. A heterozygote (BW) is a bluish-gray color. What results if a black individual is crossed with a bluish-gray individual? (SHOW YOUR WORK)

Parent 1: \_\_\_\_\_

Parent 2: \_\_\_\_\_



Offspring-

Genotypic Ratio:

\_\_\_ BB : \_\_\_ BW : \_\_\_ WW

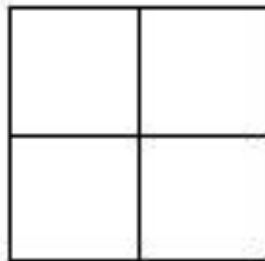
Phenotypic Ratio:

\_\_\_ black : \_\_\_ bluish-gray: \_\_\_ white

2. Cat fur color is determined by codominance. The allele for tan fur (TT) and the allele for black fur (BB) are codominant. The heterozygous condition results in a cat with tan and black spots, called a tabby cat. What would occur if a tan cat was crossed with a tabby cat? Draw the Punnett square and identify the genotypes and phenotypes of their offspring.

Parent 1: \_\_\_\_\_

Parent 2: \_\_\_\_\_



Offspring-

Genotypic Ratio:

\_\_\_ TT : \_\_\_ TB : \_\_\_ BB

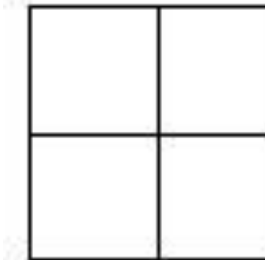
Phenotypic Ratio:

\_\_\_ tan : \_\_\_ tabby : \_\_\_ black

3. A man with type AB blood is married to a woman also with type AB blood. What percentage of their children will have:

Parent 1: \_\_\_\_\_

Parent 2: \_\_\_\_\_



Children:

\_\_\_\_\_ type A blood

\_\_\_\_\_ type B blood

\_\_\_\_\_ type AB blood

\_\_\_\_\_ type O blood

4. Calico is a coat color found in cats, which is caused by a sex-linked, co-dominant allele:

The following genotypes are possible:

- Female cats can be black  $X^B X^B$ , orange  $X^R X^R$ , or calico  $X^B X^R$
- Male cats can be black  $X^B Y$  or orange  $X^R Y$

Show the cross below and include the phenotypic ratios of the offspring.

- a. An orange male crossed with a calico female.

