



# Punnett Square Practice

## Worksheet



Name: \_\_\_\_\_

Class: \_\_\_\_\_

### 1) Coat Color in Female Dogs

In dogs, black fur (B) is dominant over brown fur (b).

a) Cross: Homozygous black female (BB) × Heterozygous black male (Bb)


- What percentage of offspring will have black fur?
- What percentage will have brown fur?
- Genotypic ratio: \_\_\_\_\_
- Phenotypic ratio: \_\_\_\_\_

### 2) Eye Color in Female Dogs

Blue eyes (E) are dominant over brown eyes (e).

b) Cross: Heterozygous blue-eyed female (Ee) × Brown-eyed male (ee)


- What percentage of female puppies will have blue eyes?
- What percentage will have brown eyes?
- Genotypic ratio: \_\_\_\_\_
- Phenotypic ratio: \_\_\_\_\_

### 3) Tail Shape in Female Dogs

Curly tails (C) are dominant over straight tails (c).

c) Cross: Two heterozygous curly-tailed parents (Cc × Cc)


- What percentage of female offspring will have curly tails?
- What percentage will have straight tails?
- Genotypic ratio: \_\_\_\_\_
- Phenotypic ratio: \_\_\_\_\_

### 4) Challenge Question

A black-furred, blue-eyed female dog (BbEe) is crossed with a brown-furred, brown-eyed male dog (bbee).


- Complete the Punnett square for both traits (B and E).
- What are the possible coat color and eye color combinations for female offspring?
- How many puppies could have black fur and blue eyes?
- How many could have brown fur and brown eyes?