

# Punnett Square Practice

Earlobe Shape:

L = attached earlobe

l = detached earlobe

Ear wax wetness:

W = wet ear wax

w = dry ear wax

Eye color:

B = brown eyes

b = blue eyes

Height:

T = tall

t = short

Directions:

1. Create Punnett squares to determine the possible genotypes that a child would have for each set of parents.
2. Then analyze the genotypes to say what percent chance there would be for any one combination to occur.

Example:

Father: Ww

Mother: Ww

Use a Punnett square to determine the combinations that follow. One allele comes from each parent.

Offspring possible combinations:

- WW
- Ww
- Ww
- ww

Probabilities for each combination:

- WW – homozygous dominant,  $1/4 = 25\%$
- Ww – heterozygous,  $2/4 = 50\%$
- ww – homozygous recessive,  $1/4 = 25\%$

Problem 1:

Father: Ll

Mother: Ll

Problem 2:

Father: Ww

Mother: ww

Problem 3:

Father: bbTt

Mother: BbTt