

IA2: Punnett Square Worksheet-Human Characteristics

Directions: Complete the following Punnett Squares. Be sure that you include the ratios of the genotypes (and the words used to describe those alleles) and phenotypes of the characteristics. See the example on webpage if you need a reminder. For extra help, you can contact Noemi Waight at nwaight@uiuc.edu. She will answer any questions you may have.

1. B= Brown eyes b= blue eyes Mom= Bb Dad= BB What are the eye color possibilities if they chose to have children?

Genotypes

Phenotypes

2. Curly hair is recessive, and straight hair is dominant. A woman with curly hair marries a man who is homozygous dominant for straight hair. Predict the outcomes for their children.

Genotypes

Phenotypes

3. Black hair is homozygous dominant. Brown hair is heterozygous. Blonde hair is homozygous recessive. (This is an example of incomplete dominance.) A woman with brown hair marries a man with brown hair. What are the possible outcomes for their kids?

Genotypes

Phenotypes

4. Attached earlobes are dominant over free hanging earlobes. Complete the Punnett Square for the following individuals: Mom=BB and Dad=bb

Genotypes

Phenotypes

5. Incomplete dominance problem: T=tall (5'11"-6'2"); Tt=medium height (5'4"-5'10")
t=short (5'3" or smaller)

Mom= 5'5"

Dad= 6'0"

What are the possible height outcomes of their children?

Genotypes

Phenotypes

6. Freckles are recessive. No freckles are dominant.

Mom= heterozygous Dad=homozygous recessive Possible outcomes for kids?

Genotypes

Phenotypes
