

Name _____

Date _____

Homework: Monohybrid Cross Problems

For each of the following problems, give the genotype of the parents, make a Punnett square and give the genotype ratio and phenotype ratio expected in the offspring.

1. In hobbits, **hairy toes** (H) are dominant to **smooth toes**(h). Cross a homozygous hairy toed hobbit with a heterozygous hairy toed hobbit.

Parent genotype: _____ X _____

Genotypic ratio: _____

Phenotypic ratio: _____

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2. In humans **brown eyes** are dominant over **blue eyes**. What type of offspring would you expect if you crossed a heterozygous brown eyed person to a heterozygous brown eyed person?

Parent genotype: _____ X _____

Genotypic ratio: _____

Phenotypic ratio: _____

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3. In humans **premature gray hair** is dominant over **normal hair** coloring. Cross a homozygous premature gray haired person to a homozygous normal haired person.

Parent genotype: _____ X _____

Genotypic ratio: _____

Phenotypic ratio: _____

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4. In humans **tongue rolling** is dominant to **non-tongue rolling**. What would be the expected type of offspring if a homozygous tongue roller was crossed to a heterozygous tongue roller?

Parent genotype: _____ X _____

Genotypic ratio: _____

Phenotypic ratio: _____

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5. **Brown hair** is dominant over **light colored hair**. Cross two light haired people.

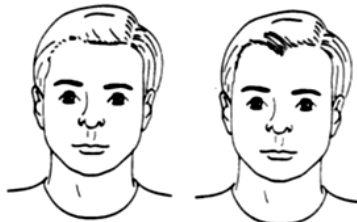
Parent genotype: _____ X _____

Genotypic ratio: _____

Phenotypic ratio: _____

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6. **Widow's peak** (W) is dominant to a **smooth hairline** (w). Cross a woman who is homozygous for widow's peak with her husband, who has a smooth hairline.



Smooth Hairlin **Widow's Peak**

Parent genotype: _____ X _____

Genotypic ratio: _____

Phenotypic ratio: _____

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7. In Rasatafarians, **dreadlocks** are dominant to **baldness**. Cross a female who's bald with her husband, who is homozygous for dreads.

Parent genotype: _____ X _____

Genotypic ratio: _____

Phenotypic ratio: _____

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