

MORE PUNNETT² PRACTICE PROBLEMS

NAME: _____

4. Set up a Punnett square using the following information:

- Hemophilia is a **sex-linked** recessive disease
- Dominant allele for hemophilia = H
- Recessive allele for hemophilia = h
- **Cross a father with hemophilia and a mother that does NOT have hemophilia but IS a carrier.**

What is the probability of these parents having a son that has hemophilia?

What is the probability of these parents having a daughter that has hemophilia?

5. Set up a Punnett square using the following information:

- Hemophilia is a **sex-linked** disease
- Dominant allele for hemophilia = H
- Recessive allele for hemophilia = h
- **Cross a mother with hemophilia with a father who does not have hemophilia.**

What is the probability of these parents having a son that has hemophilia?

What is the probability of these parents having a daughter that has hemophilia?

6. Set up a Punnett square using the following information:

- Colorblindness in humans is a **sex-linked recessive trait**
- Dominant allele for colorblindness = B
- Recessive allele for colorblindness = b
- **Cross a father who is colorblind with a mother who is NOT colorblind but IS a carrier.**

What are the possible genotypes of offspring?

What is the probability for each of the possible genotypes?

What are the possible phenotypes of offspring?

What is the probability for each of the possible phenotypes?

7. Set up a Punnett square using the following information:

- Colorblindness in humans is a **sex-linked recessive trait**
- Dominant allele for colorblindness = B
- Recessive allele for colorblindness = b
- **Cross a father who is colorblind with a mother who is NOT colorblind and IS NOT a carrier.**

What are the possible genotypes of offspring?

What is the probability for each of the possible genotypes?

What are the possible phenotypes of offspring?

What is the probability for each of the possible phenotypes?

8. Set up a Punnett square using the following information:

- Flower color is a **incompletely dominant trait**
- Dominant allele for flower color = R
- Recessive allele for flower color = r
- Phenotype for RR = red
- Phenotype for rr = white
- Phenotype for Rr = pink
- **Cross a homozygous dominant parent with a heterozygous parent.**

What are the possible genotypes of offspring?

What is the probability for each of the possible genotypes?

What are the possible phenotypes of offspring?

What is the probability for each of the possible phenotypes?