Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_

Dihybrid Cross Practice

1. Set up a Punnett Square using the following information:

**D** = Dominant allele for tall plants

**d** = recessive allele for dwarf plants

**W**= Dominant allele for purple flowers

**w** = recessive allele for white flowers

Cross a homozygous dominant parent (DDWW) with a homozygous recessive parent (ddww).

Do FOIL to determine the parent’s gamete combinations:

 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ X \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Parent 1 Parent 2

1. What are the genotypes that produce tall plants with purple flowers?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce dwarf plants with white flowers?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce tall plants with white flowers?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce dwarf plants with purple flowers?

Probability: \_\_\_\_\_\_\_\_

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1. Set up a Punnett Square using the following information:

**B** = Dominant allele for black fur in guinea pigs

**b** = recessive allele for white fur

**R**= Dominant allele for rough fur

**r** = recessive allele for smooth fur

Cross a heterozygous parent (BbRr) with a heterozygous parent (BbRr). Gametes: \_\_\_\_\_, \_\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

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1. What are the genotypes that produce black and rough fur?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce black and smooth fur?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce white and rough fur?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce white and smooth fur?

Probability: \_\_\_\_\_\_\_\_

1. Set up a Punnett Square using the following information:

**R** = Dominant allele for purple corn kernels

**r** = recessive allele for yellow corn kernels

**T**= Dominant allele for starchy kernels

**t** = recessive allele for sweet kernels

Cross a homozygous dominant parent with a homozygous recessive parent.

Do FOIL to determine the parent’s gamete combinations:

 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ X \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

1. What are the genotypes that produce purple, starchy kernels?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce yellow, starchy kernels?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce purple, sweet kernels?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce yellow, sweet kernels?

Probability: \_\_\_\_\_\_\_\_

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**N** = Dominant allele for normal coat color

**n** = recessive allele for black coat color

**B**= Dominant allele for brown eyes

**b** = recessive allele for blue eyes

1. Set up a Punnett Square using the following information:

Cross a heterozygous parent with a heterozygous parent.

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Do FOIL to determine the parent’s gamete combinations:

 Gametes: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

1. What are the genotypes that produce a normal coat and brown eyes?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce a normal coat with blue eyes?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce a black coat with brown eyes?

Probability: \_\_\_\_\_\_\_\_

1. What are the genotypes that produce a black coat with blue eyes?

Probability: \_\_\_\_\_\_\_\_