Name _____ Date _____ Class _____

Review and Reinforce

# Probability and Heredity

## Understanding Main Ideas

Complete the Punnett squares. Then use a separate sheet of paper to answer the questions that follow.

1. Punnett Square A:

| | B | b |
|---|---|---|
| B | | |
| b | | |

2. Punnett Square B:

| | | |
|---|---|---|
| | Bb | bb |
| | Bb | bb |

3. Punnett Square A shows a cross between two black guinea pigs. What is the probability that an offspring will be black? White?
4. What color are the parents shown in Punnett Square B?
5. Which guinea pig parent(s) in Punnett Square B is homozygous? Which is heterozygous? Explain how you know?
6. What is the probability that an offspring will be black in the cross shown in Punnett Square B? White?

## Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

| | |
|---|---|
| 7. ___ heterozygous | a. a number describing how likely an event is |
| 8. ___ genotype | b. an organism that has two identical alleles for a trait |
| 9. ___ probability | c. an organism's physical appearance |
| 10. ___ homozygous | d. an organism's genetic makeup, or allele combinations |
| 11. ___ phenotype | e. an organism that has two different alleles for a trait |
| 12. ___ pedigree | f. a tool for tracing traits |