Genetics Name:

Punnett Squares and Probability Period:

Use Chapter 6, Section 2 of your textbook to answer the questions below. The word banks can be used to fill out the sentences below them.

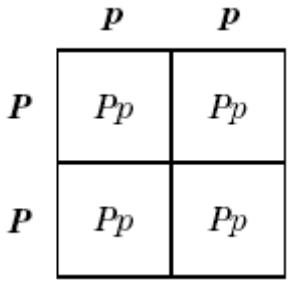
allele genotypes

Punnett Squares (p.181)

1. A Punnett square is used to predict possible _____ for a particular cross.

2. Offspring get one _____ from each parent.

Use the Punnett square below to answer questions 3 and 4.



_____ 3. Look at the Punnett square above. What color will the offspring of the purple (PP) and white (pp) flowers be?

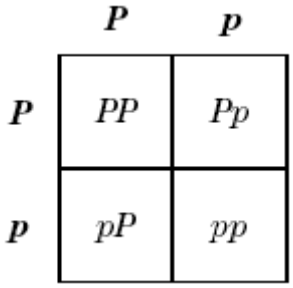
a. purple b. white c. same number of purple and white d. a blend of white and purple

_____ 4. Look at the Punnett square above. How many of the offspring from this cross will have the same genotype?

a. all the offspring
b. half of the offspring
c. one-fourth of the offspring
d. none of the offspring

More Evidence for Inheritance (p.182)

Use the Punnett square below to answer questions 5 and 6.



_____ 5. Look at the Punnett square above. What are the possible genotypes of the offspring of this cross?

a. PP, Pp, PP, pp b. Pp, pp, PP, pp c. pp, Pp, pP, pp d. PP, Pp, pP, pp

_____ 6. Look at the Punnett square above. Which two genotypes are exactly the same?

a. PP and Pp b. Pp and pP c. pp and Pp d. PP and pp

turn over the page for more questions

Genetics Name:

Punnett Squares and Probability Period:

probability random

What Are the Chances? (p.182)

7. How many alleles does each parent have for a gene? _____

8. The chance of an offspring getting one allele or another is _____ .

Probability (p.182)

9. _____ is the mathematical chance that something will happen.

_____ 10. When you toss a coin, what is the probability of tossing tails?
a. 1/1 b. 1/4 c. 1/2 d. 2/1

Calculating Probabilities (p.183)

_____ 11. How would you calculate the probability of tossing a coin and having the coin land heads up twice in a row?
a. 2 x 2 = 4 b. 1 x 2 = 2 c. 1/2 x 2 = 1 d. 1/2 x 1/2 = 1/4

Genotype Probability (p.183)

_____ 12. In a pea plant, what chance does offspring of a *Pp* x *Pp* cross have to receive two *p* alleles?
a. 1/2 x 1/4 = 1/8 b. 1/2 x 1/2 = 1/4 c. 1 x 2 = 2 d. 1/2 x 1 = 1/2

_____ 13. How many choices were there for each pea plant trait Mendel examined?
a. 1 b. 2 c. 3 d. 4