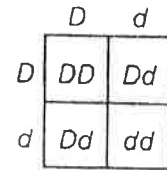
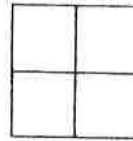
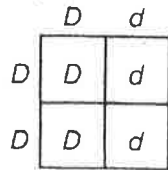
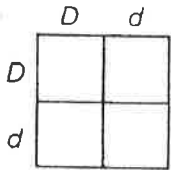


Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

**EXPECTED AND OBSERVED RESULTS**

In section 26:2 of your textbook, read about solving genetics problems using the Punnett square.

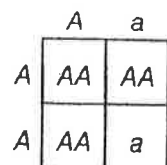
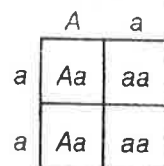
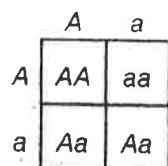
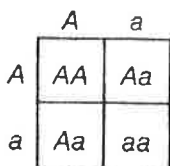
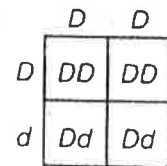
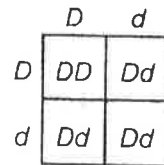
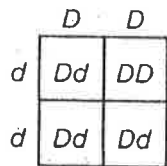
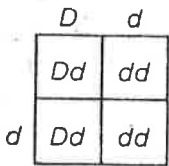
3. Examine the diagrams below. Each is a step in the Punnett square method. Put the steps in order by writing the numbers 1 to 4 below them on the correct blanks.



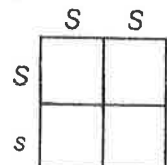
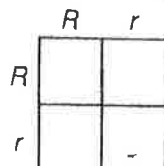
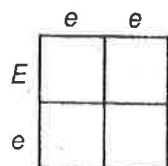
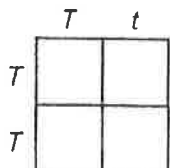
4. What do the letters outside the Punnett square stand for? \_\_\_\_\_

What do the letters inside each box stand for? \_\_\_\_\_

5. Examine the following Punnett squares and circle those that are correct.



6. Complete the following to determine the expected offspring.



Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

**EXPECTED AND OBSERVED RESULTS**

7. In corn plants, normal height  $H$  is dominant to short height  $h$ . Complete these four Punnett squares showing different crosses. Then, shade red all the pure dominant offspring. Shade green all the heterozygous offspring. Leave all the pure recessive offspring unshaded.

	$H$	$H$
$h$		
$h$		

	$H$	$h$
$H$		
$H$		

	$H$	$h$
$H$		
$h$		

	$H$	$h$
$h$		
$h$		

8. In flies, long wings  $L$  are dominant to short wings  $l$ . Complete these four Punnett squares showing different crosses. Then, shade red all the offspring that will have long wings. Leave all the shortwinged offspring unshaded.

	$L$	$L$
$l$		
$l$		

	$L$	$l$
$L$		
$l$		

	$l$	$l$
$l$		
$l$		

	$L$	$l$
$l$		
$l$		

9. In guinea pigs, short hair  $S$  is dominant to long hair  $s$ . Complete the following Punnett squares according to the directions given. Then, fill in the blanks beside each Punnett square with the correct numbers.

- a. One guinea pig is  $Ss$  and one is  $ss$ .


Offspring expected (number)

\_\_\_\_\_ Short hair

\_\_\_\_\_ Long hair

- b. Both guinea pigs are heterozygous for short hair.


Offspring expected (number)

\_\_\_\_\_ Short hair

\_\_\_\_\_ Long hair