

Punnett square worksheet

Complete the following monohybrid crosses: draw a Punnett square, list the ratio and describe the offspring. Be sure to remember that the **capital letter is dominant**.

Example)

A green pea plant (GG) is being crossed with a green pea plant (Gg).

	G	G	
G	GG	GG	
g	Gg	Gg	

GenoType= 2 GG: 2 Gg ; 0 gg

Phenotype= 4 Green pea plants: 0 other color

1) A green pea plant (Gg) is crossed with a yellow pea plant (gg).

Gg	Gg
gg	gg

2) A tall plant (TT) is crossed with a tall plant (Tt).

TT	Tt
TT	Tt

3) A tall plant (Tt) is crossed with a short plant (tt).

Tt	Tt
tt	tt

4) A red flower (Rr) is crossed with a white flower (rr).

Rr	Rr
rr	rr

5) A white flower (rr) is crossed with a white flower (rr).

rr	rr
rr	rr

6) A black chicken (BB) is crossed with a black chicken (BB).

BB	BB
BB	BB

Punnett square problems continued

Complete the following problems. List the parent genotypes, draw and fill in a Punnett square, and then list the offspring genotypes and phenotypes.

1. A homozygous dominant brown mouse is crossed with a heterozygous brown mouse (tan is the recessive color).

100% Brown

BB:Bb

1:1

2. Two heterozygous white (brown fur is recessive) rabbits are crossed.

75% White: 25% Brown

1: 2: 1

FF: Ff: ff

3. Two heterozygous red flowers (white flowers are recessive) are crossed.

3:1

Red : White

1: 2: 1

RR: Rr: rr

4. A homozygous tall plant is crossed with a heterozygous tall plant (short is the recessive size).

100% tall

1:1

TT: Tt

5. A heterozygous white rabbit is crossed with a homozygous black rabbit.

1:1

White : Black

50% Ww: 50% ww