

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) yellow is the recessive color.

	G	G	
G	GG	GG	Genotype= 2 GG: 2 Gg ; 0 gg
g	Gg	Gg	Phenotype= 4 Green pea plants: 0 yellow pea plants

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

Genotype=
Phenotype=

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

Genotype=
Phenotype=

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

Genotype=
Phenotype=

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

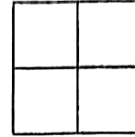
Genotype=
Phenotype=

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

Genotype=
Phenotype=

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

Genotype=
Phenotype=



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).

Genotype=
Phenotype=

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

Genotype=
Phenotype=

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

Genotype=
Phenotype=

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

Genotype=
Phenotype=

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

Genotype=
Phenotype=

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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) yellow is the recessive color.

	G	G	
G	GG	GG	Genotype= 2 GG; 2 Gg; 0 gg
g	Gg	Gg	
			Phenotype= 4 Green pea plants; 0 yellow pea plants

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

Genotype= 2 Gg : 2 gg
Phenotype= 2 green : 2 yellow

	G	g
g	Gg	gg
g	Gg	gg

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

Genotype= 2 TT : 2 Tt
Phenotype= 4 tall : 0

	T	T
T	TT	TT
t	Tt	Tt

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

Genotype= 2 Tt : 2 tt
Phenotype= 2 tall : 2 short

	T	t
t	Tt	tt
t	Tt	tt

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

Genotype= 2 Rr : 2 rr
Phenotype= 2 Red : 2 white

	R	r
r	Rr	rr
r	Rr	rr

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

Genotype= 4 rr : 0
Phenotype= 4 white : 0

	r	r
r	rr	rr
r	rr	rr

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

Genotype = 4 BB : 0
 Phenotype = 4 Black : 0

	B	B
B	BB	BB
B	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).

B = Brown
 b = tan

Genotype = 2 BB : 2 Bb
 Phenotype = 4 Brown : 0

	B	B
B	BB	BB
b	Bb	Bb

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

W = white
 w = brown

Genotype = 1 WW : 2 Ww : 1 ww
 Phenotype = 3 White : 1 Brown

	W	w
W	WW	Ww
w	Ww	ww

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

R = red
 r = white

Genotype = 1 RR : 2 Rr : 1 rr
 Phenotype = 3 Red : 1 White

	R	r
R	RR	Rr
r	Rr	rr

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

T = tall
 t = short

Genotype = 2 TT : 2 Tt
 Phenotype = 4 tall : 0

	T	T
T	TT	Tt
t	Tt	tt

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

W = white
 w = Black

Genotype = 2 Ww : 2 ww
 Phenotype = 2 White : 2 Black

	W	w
w	Ww	ww
w	Ww	ww