Key

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Punnett Square Practice Pages

Directions: Complete each Punnett Square and answer the questions.

1. Flower color
   a. Purple is dominant (P)
   b. White is recessive (p)
   c. A PP father and a PP mother

	P	P
P	PP	PP
P	PP	PP

   d. What color(s) are the parents? Purple (m & f)
   e. What color(s) are the children? Purple 100%

2. Seed color
   a. Yellow is dominant (Y)
   b. Green is recessive (y)
   c. A yy father and a yy mother

	y	y
y	yy	yy
y	yy	yy

   d. What color(s) are the parents? Green (m & f)
   e. What color(s) are the children? Green 100%

3. Seed shape
   a. Round is dominant (R)
   b. Wrinkled is recessive (r)
   c. An RR father and an rr mother

	r	r
R	Rr	Rr
R	Rr	Rr

   d. What shape(s) are the parents? Round (f) Wrinkled (m)
   e. What shape(s) are the children? 100% Round

4. Pod color
   a. Green is dominant (G)
   b. Yellow is recessive (g)
   c. A Gg father and a GG mother

	G	G
G	GG	GG
g	Gg	Gg

   d. What color(s) are the parents? Green (m & f)
   e. What color(s) are the children? 100% green

5. Pod shape
   a. Smooth is dominant (S)
   b. Bumpy is recessive (s)
   c. A Ss father and a ss mother

	S	S
S	Ss	Ss
s	ss	ss

   d. What shape(s) are the parents? Smooth (f) Bumpy (m)
   e. What shape(s) are the children? 50% Smooth 50% Bumpy

6. Flower position
   a. Along stem is dominant (A)
   b. At tip is recessive (a)
   c. An Aa father and an Aa mother

	A	a
A	AA	Aa
a	Aa	aa

   d. What flower position(s) are the parents? Along stem (m & f)
   e. What flower position(s) are the children? 75% Along stem
      25% At Tip

7. Plant height
   a. Tall is dominant (T)
   b. Short is recessive (t)

	? T	? T
T	TT	TT
t	Tt	Tt

   c. What is the genotype of the missing parent? TT
   d. What are the phenotypes of the parents? Tall (m & f)
   e. What are the phenotypes of the children? 100% Tall

8. Chin cleft in humans
   a. Chin cleft is dominant (C)
   b. No chin cleft is recessive (c)

	c	c
?	Cc	Cc
?	cc	cc

   c. What is the genotype of the missing parent? Cc
   d. What are the phenotypes of the parents? Chin cleft (f) No chin cleft (m)
   e. What are the phenotypes of the children? 50% chin cleft
      50% No chin cleft

9. Fur color in rabbits
   a. Black fur is dominant (B)
   b. White fur is recessive (b)

	B	B
b	Bb	Bb
b	Bb	Bb

   c. What is the genotype of the missing parent? bb
   d. What are the phenotypes of the parents? Black fur (m) White fur (f)
   e. What are the phenotypes of the children? 100% Black fur

10. Dimples in humans
   a. Dimples are dominant (D)
   b. No dimples is recessive (d)

	? D	? d
D	DD	dD
d	Dd	dd

   c. What is the genotype of the missing parent? Dd
   d. What are the phenotypes of the parents? Dimples (m & f)
   e. What are the phenotypes of the children? 75% Dimples
      25% No Dimples

11. Whiskers in seals
    a. Long whiskers are dominant (W)
    b. Short whiskers are recessive (w)

	W	W
W	WW	WW
W	WW	WW

Letters

    c. What is the genotype of the missing parent? WW
    d. What are the phenotypes of the parents? long whiskers (m & F)
    e. What are the phenotypes of the children? long whiskers (100%)

12. Purple people eater horns
    a. One horn is dominant (H)
    b. No horns are recessive (h)

	h	h
h	hh	hh
h	hh	hh

    c. What is the genotype of the missing parent? hh
    d. What are the phenotypes of the parents? No horns (m & f)
    e. What are the phenotypes of the children? 100% No horns

13. Incomplete dominance in snapdragons (hint: look at your notes)
    a. Red flowers are dominant (R)
    b. White flowers are recessive (r)
    c. An Rr father and an Rr mother

	R	r
R	RR	Rr
r	Rr	rr

    d. What color(s) are the parents? Pink (m & f)
    e. What color(s) are the children? 25% Red 50% Pink 25% White

14. Codominance in human blood (hint: look at your notes)
    a. Types A and B are dominant (A, B)
    b. Type O is recessive (O)
    c. An OA father and an OB mother

	O	B
O	OO	BO
A	AO	AB

    d. What are the blood types of the children? Type O (25%) Type B (25%) Type A (25%) Type AB (25%)

15. Hair color in humans (hint: look at your notes)
    a. Dark hair is dominant (D)
    b. Light hair is recessive (d)
    c. A Dd father and a Dd mother

	D	d
D	DD	Dd
d	Dd	dd

    d. What color hair do the parents have? Dark
    e. What color hair do the children have? 75% Dark 25% light
    f. Is there only one gene that affects hair color in humans? NO! There are many!
    g. What besides genes influences traits? physical environment

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