

The background features several large, stylized, overlapping swirls in light green, light purple, and light blue. Scattered throughout are numerous small, yellow, starburst-like shapes, some of which are larger and more prominent than others. The overall aesthetic is bright and playful.

Punnett Square Practice

**Use your clicker to
choose the correct
answer**



Dominant vs. Recessive

Which trait is dominant?

A. B

B. b

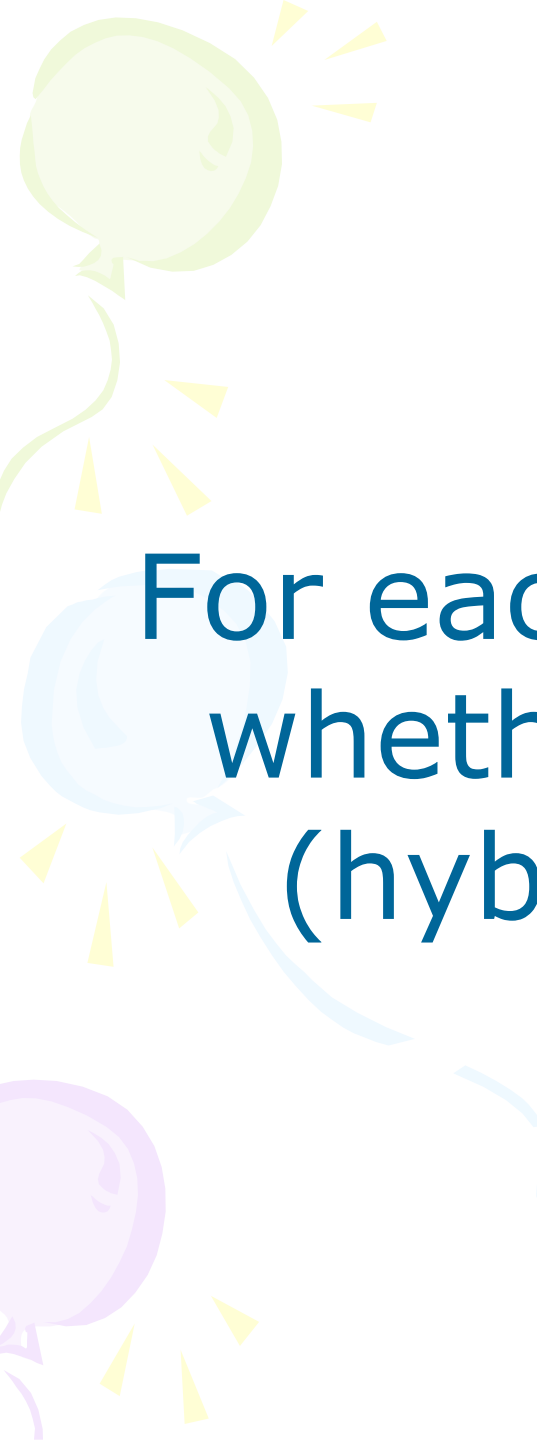


Dominant vs. Recessive

Which trait is recessive?

A.B

B.b



Heterozygous or Homozygous

For each genotype, indicate
whether it is heterozygous
(hybrid) or homozygous
(purebred)



Question 1

Rr

- 
- A) Heterozygous (hybrid)
 - B) Homozygous (purebred)

Question 2

tt

- A) Heterozygous (hybrid)
- B) Homozygous (purebred)

Question 3

DD

- A) Heterozygous (hybrid)
- B) Homozygous (purebred)



Filling in a punnett square and interpreting the results

For this set of questions fill in the punnett square or draw conclusions from the punnett square.

Question 4

	R	r
R		
R		?

A)RR

B)Rr

C)rr

Question 5

	D	d
D		
d	?	

- A) DD
- B) Dd
- C) dd

Question 6

	G	g
g		?
g		

A) GG

B) Gg

C) gg

Three balloons in green, blue, and purple are visible on the left side of the slide, each with yellow triangular streamers.

Question 7

In pea plants smooth seeds are dominant (S) to wrinkled seeds (s).

What is the genotype for a pea seed that is wrinkled?

A) SS

B) Ss

C) ss



Question 8

In pea plants smooth seeds are dominant (S) to wrinkled seeds (s).
What is the phenotype for a pea seed that is Ss?

- A) smooth
- B) wrinkled

Three balloons (green, blue, and purple) with yellow streamers are positioned on the left side of the slide.

Question 9

In pea plants smooth seeds are dominant (S) to wrinkled seeds (s).

What is the phenotype for a pea seed that is homozygous recessive (rr)?

A) smooth

B) wrinkled

Question 10

One cat carries heterozygous, long-haired traits (Ll), and its mate carries homozygous short-haired traits (ll).

What is the probability of one of their offspring having long hair?

A) 4:4 100%

B) 1:4 25%

C) 3:4 75%

D) 2:4 50%

Question 11

A heterozygous round seeded plant (Rr) is crossed with a homozygous round seeded plant (RR). **What percentage of the offspring will be homozygous dominant(RR)?**

- A) 4:4 100%
- B) 3:4 75%
- C) 2:4 50%
- D) 1:4 25%

Question 12

In pea plants purple flowers are dominant (P) to white flowers (p). Two plant, both heterozygous (Pp) for the gene that controls flower color are crossed. **What percentage of the offspring will have purple flowers?**

- A) 1:4 25%
- B) 3:4 75%
- C) 4:4 100%
- D) 2:4 50%

A decorative graphic on the left side of the slide featuring three balloons in green, blue, and purple, each with yellow streamers and small yellow triangular flags.

GENETICS REVIEW



Question 13

A single gene carries _____ unit(s) of information.

A.1

B.2

C.3

D.4



Question 14

An inherited trait that is controlled by more than one gene pair is called a

A. Gene

B. Heredity

C. Polygenetic trait

D. Genetics



Question 15

How many chromosomes are in a human cell?

A.23

B.24

C.46

D.48



Question 16

How many chromosomes are in a human sex cell?

A.23

B.24

C.46

D.48



Question 17

Which of the following are **advantages** of asexual reproduction:

- A. More time and energy
- B. Less time and energy
- C. More genetic diversity
- D. Less genetic diversity
- E. One parent
- F. Two parents



Question 18

Which of the following are **advantages** of sexual reproduction:

- A. More time and energy
- B. Less time and energy
- C. More genetic diversity
- D. Less genetic diversity
- E. One parent
- F. Two parents



Question 19

Which of the following are **not** **advantages** of asexual reproduction:

- A. More time and energy
- B. Less time and energy
- C. More genetic diversity
- D. Less genetic diversity
- E. One parent
- F. Two parents



Question 20

Which of the following are **not** **advantages** of sexual reproduction:

- A. More time and energy
- B. Less time and energy
- C. More genetic diversity
- D. Less genetic diversity
- E. One parent
- F. Two parents



Question 21

What is a mutation?

- A. Different chromosomes mixing
- B. Any change in DNA
- C. When DNA combines
- D. Different alleles mixing

A decorative graphic on the left side of the slide featuring a green balloon at the top, a light blue balloon in the middle, and a purple balloon at the bottom, all with yellow streamers and triangular flags.

Question 22

An example of an acquired trait would be _____.

- A. Attached earlobes
- B. Doing algebra
- C. Spider spinning a web
- D. Shoe size



Question 23

An example of an inherited trait would be _____.

A. Blue eyes

B. The ability to ride a bike

C. Cooking dinner

D. Knowing how to get to grandma's house



Question 24

What is the difference between instinctive and learned characteristics?

- A. Learned characteristics are behaviors an organism is born with know how to do.
- B. Learned characteristics are behaviors an organism acquires through out their life time.
- C. Instinctive characteristics are behaviors that an organism acquires from watching other in their group.
- D. Instinctive characteristics are behaviors that an organism learn through trial and error.

Three balloons (green, blue, and purple) are positioned on the left side of the slide, each with yellow triangular rays emanating from it.

Question 25

Talk in your group and list some examples of how the environment can influence inherited traits?