

hey

Even More Mendels Test Prep

List and describe all 3 types of mutations.

Loss-of-function = loss of wild type function

Gain-of-function = enhances wild type function

Neutral = No change

What do we label alleles as if they are wild type or mutant?

mutant = e

wild type = e^+

What is incomplete dominance? Complete a Punnett square for two snapdragons that are pink.

Offspring have the intermediate of Parents

$R^1 R^2 \times R^1 R^2$

R^1	R^2
R^1 $R^1 R^1$	$R^1 R^2$
R^2 $R^2 R^1$	$R^2 R^2$

genotype } phenotype

1: $R^1 R^1$ } 2 Pink
2: $R^1 R^2$ } 1 red
1: $R^2 R^2$ } 1 white

$R^1 R^1 = \text{red}$
 $R^2 R^2 = \text{white}$

What is codominance? If someone presents with the blood group $L^M L^N$, what would their phenotype be?

Both traits shown (No mix)

since they mix, the person would be both L^M and L^N at once.

What ratio is expected for both of these types of inheritance?

1:2:1

Complete a Punnett square when two people with AB blood type have a child. What is the probability of this child being A? What type of inheritance is this?

	A	B
A	AA	AB
B	AB	BB

1/4 are A blood type

This is an example of multiple alleles.

What is the Bombay phenotype? Where is Bombay?

- A girl who presented blood as O, but was genetically AB

- India

What are essential and lethal genes?

- essential genes are needed to live

- lethal genes can kill an organism

Agouti mice carry a lethal recessive gene. What is the result of crossing two mice that are heterozygous for this trait? What is the probability that their offspring will not survive?

	A	A ^y
A	AA	AA ^y
A ^y	AA ^y	A ^y A ^y

1/4 will not live

2:1 ratio

What is epistasis?

- when gene expression masks another
- Can even mask lethal alleles