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QUESTION 1

Select all that apply.

Which are some effects of the genetic disorder **albinism**?



- [x] no color in the skin, eyes, and hair ✓
- [ ] mental disabilities
- [ ] production of sticky mucus
- [ ] kidney failure
- [x] vision problems ✓
- [ ] persistent lung infections

QUESTION 2

Select the correct answer.

A girl has inherited only one allele of galactosemia from one of her parents. Which statement is **correct** about this girl's condition?

- (•) She is a carrier of the disease. ✓
- ( ) She expresses the disease in her phenotype.
- ( ) She has a homozygous recessive genotype.
- ( ) She has a homozygous dominant genotype.

QUESTION 3

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Select the correct answer.

Which of the following is a fatal (causes death) recessive genetic disorder?

- Huntington's disease
- Achondroplasia
- Tay-Sachs disease ✓
- Albinism

QUESTION 4

Select the correct answer.

Huntington's disease is caused by a **dominant** allele.
Which of the following best describes what this means?

- An individual will express the disease only if they have two copies of the allele of the defective gene.
- An individual will express the disease even if they have only one copy of the allele of the defective gene. ✓
- An individual must have the recessive alleles to express Hungtington's disease.
- An individual with the dominant allele is a carrier of the disease and doesn't express it in their phenotype.

QUESTION 5

Select the correct percentage from the drop-down menu to complete the sentence.

A couple who is a carrier of galactosemia has a child with the disease. The chance of this couple to have two children with galactosemia is

$\frac{1}{16}$ ✓ .

QUESTION 6

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Select the correct answer.

Cystic fibrosis is an inherited disorder caused by a recessive allele (c). A male who is heterozygous for the disease reproduces with a homozygous dominant female.

What is their probability to have a child who is a carrier of the cystic fibrosis allele?

- 25%
- 75%
- 0%
- 50% ✓

QUESTION 7

Drag and drop the correct answer to complete the sentence.

Tay-Sachs disease is a recessive genetic disorder caused by a recessive allele (t).

A child was born with Tay-Sachs disease. The genotypes of his parents are [Tt and Tt ✓].

TT and Tt | TT and tt | TT and TT

QUESTION 8

Select the correct word from the drop-down menu to complete the sentence.

A boy has inherited one allele of Achondroplasia from one of his parents, the boy expresses the disease. This means that Achondroplasia is a [dominant ✓] genetic disorder.

QUESTION 9

Drag and drop each correct answer into the appropriate box.

Genetic disorder	Effect
Galactosemia	Brain damage ✓
Albinism ✓	Pale skin
Cystic fibrosis	Clogged airways ✓

Vision problems

Sickle cell anemia

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QUESTION 10

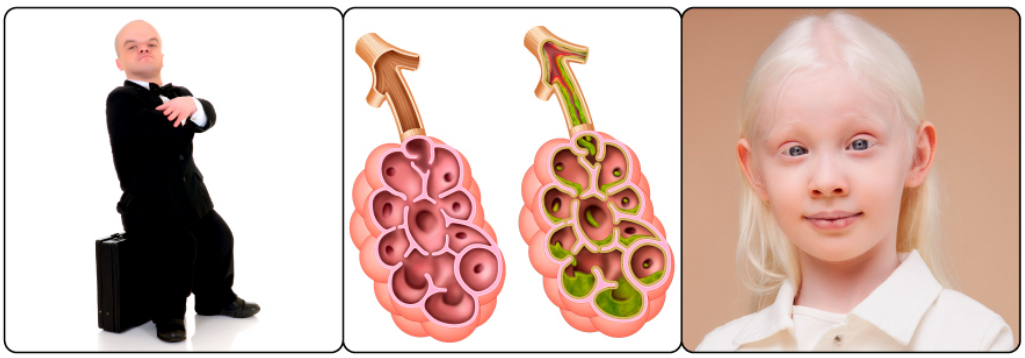
Select the correct answer.

Cystic fibrosis is caused by a recessive allele. A heterozygous male reproduces with a heterozygous female.
What is the probability that they will have a child who **does not** have cystic fibrosis?

- ○ 100%
- ○ 50%
- ○ 25%
- ◉ 75% ✓

QUESTION 11

Drag and drop the correct words to label the genetic disorders shown.



Tay-Sachs disease

Achondroplasia ✓

Cystic fibrosis ✓

QUESTION 12

Select the correct answer.

Which is an example of a dominant genetic disorder that tends to occur in every generation of the affected family?

- albinism
- Huntington's disease ✓
- cystic fibrosis
- galactosemia

QUESTION 13

Drag and drop the correct answers to complete the sentences.

Tay-Sachs disease is a recessive ✓ genetic disorder. The trait can only be expressed in the phenotype if the individual is homozygous recessive ✓ for the disease.

dominant

heterozygous

QUESTION 14

Select the correct answer.

Which statement **best** defines a carrier?

- an individual who is homozygous dominant for a genetic disorder
- an individual who is homozygous for a recessive genetic disorder

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- [ ] an individual whose parents are both homozygous for a recessive genetic disorder
- [x] an individual who is heterozygous for a recessive genetic disorder ✓

QUESTION 15

Select all that apply.

Which of these are dominant genetic disorders?

- [ ] cystic fibrosis
- [ ] Tay-Sachs disease
- [ ] galactosemia
- [x] achondroplasia ✓
- [x] Huntington's disease ✓
- [ ] albinism

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