

Name:

Class:



Dupuytren's is a disorder that affects the hands. One form of Dupuytren's is caused by a dominant allele (D). The allele for not having Dupuytren's is recessive (d).

i. What is an allele?

A different version of a gene.

ii. A man with Dupuytren's has the genotype Dd. What type of gene is Dd.

Heterozygous – is the only correct answer.

The man with Dupuytren's (Dd) and a woman who does not have Dupuytren's (dd) plan to have a child.

iii. Complete the punnet square below to show the possible genotypes of the child.

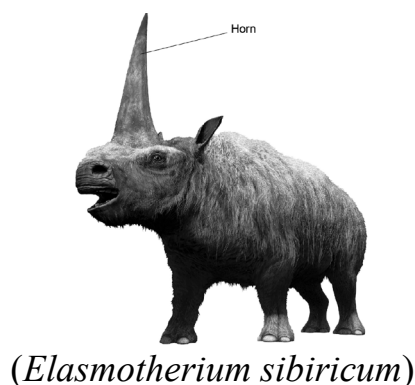
		Woman	
		d	d
Man	D	Dd	Dd
	d	dd	dd

iv. State the genotype of a child who will have Dupuytren's.

Dd

v. What is the probability of a child having Dupuytren's? **0.5 or 50%**

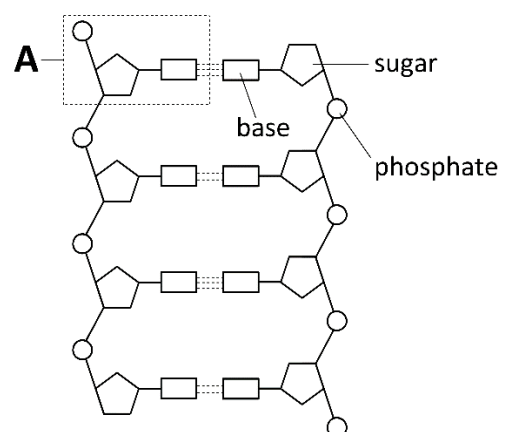
The figure below shows what the extinct Siberian rhinoceros might have looked like.



The genus of the Siberian rhinoceros is?

Elasmotherium

The figure below shows part of a DNA molecule.



What is A? **A nucleotide.**

Substances can cross a cell membrane by active transport. What is active transport?

Active transport is the movement of a substance from an area of low concentration to an area of high concentration. Moving against the concentration gradient using energy.