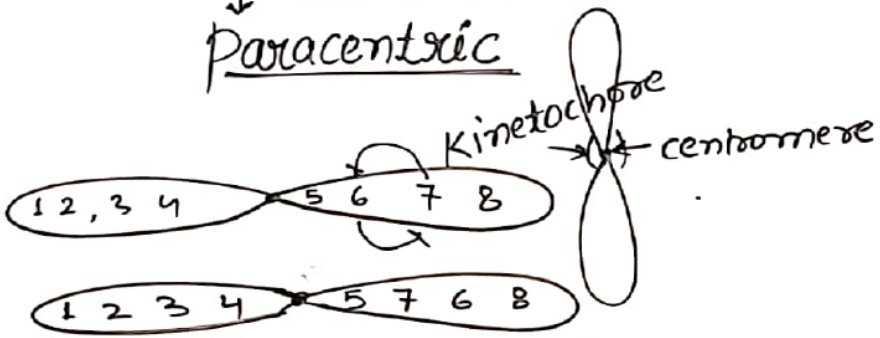
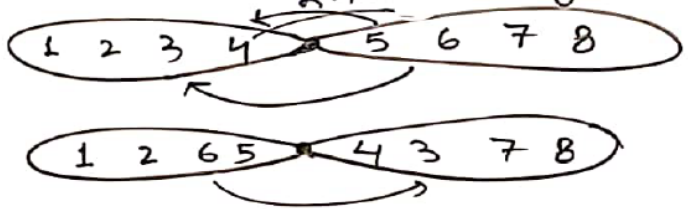
Inversion ⇒ Crossing affected

Paracentric



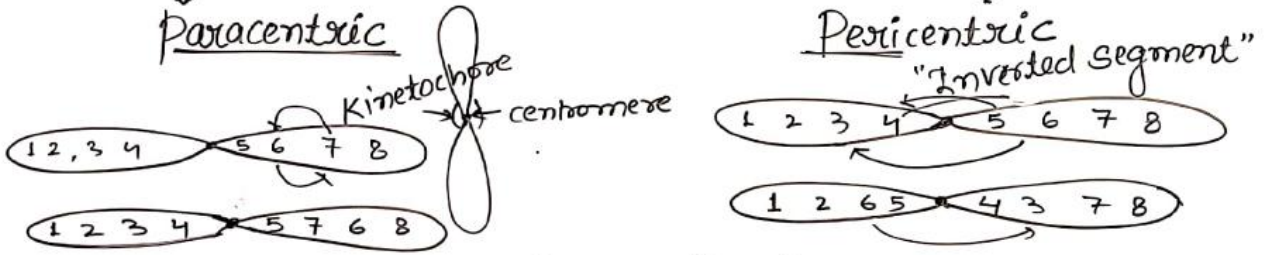
Pericentric

"Inverted segment"



3) **Duplication**

Inversion ⇒ Crossing affected



3) Duplication — Drosophila ⇒ "Bar eye character"

"Occurrence of chromosomal segment twice on a chromosome"

A B C D E F ⟶ A B C D

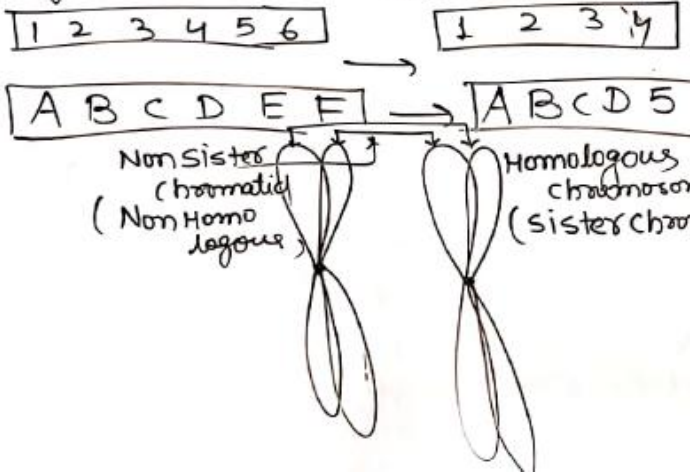
A B C D E F ⟶ A B C D E F E F

Translocation ⇒ Part of chromosome broken may be joined to non-Homologous chromosome

two types

Simple Translocation → Terminal end

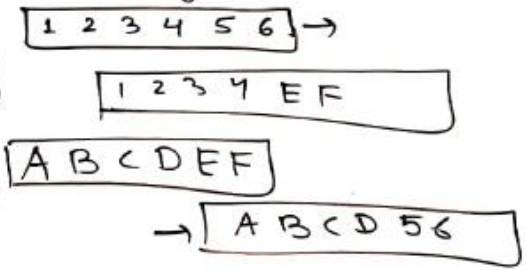
- When a chromosomal segment breaks ant get attached to non homologous chromosome



Reciprocal translocation

exchange chromosomal segments b/w two non homologous chro.

(illegal crossingover)



Translocation ⇒ Part of chromosome breaks

Reciprocal (CML) ⇒ Chronic myeloid leukaemia

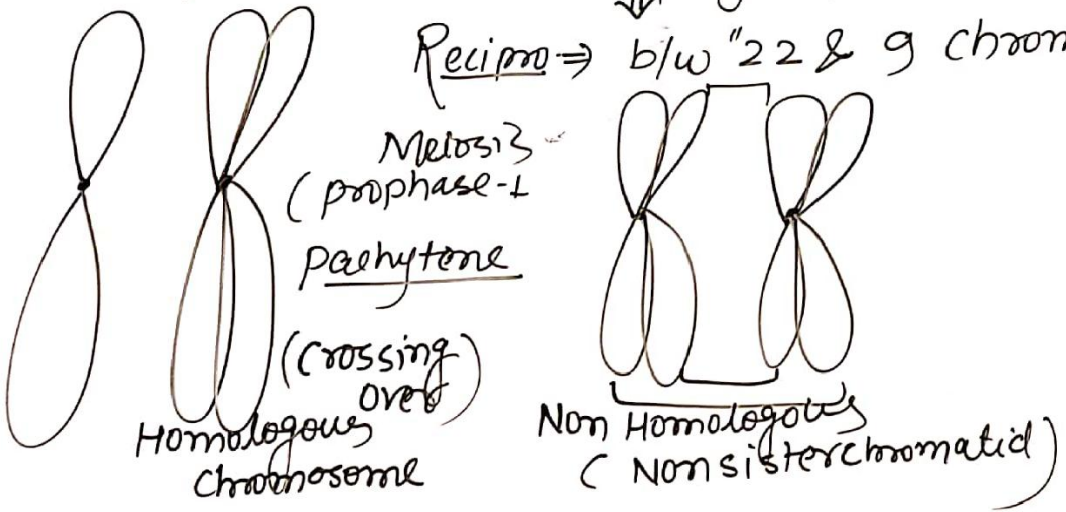
translocal ⇒

⇓

Is the type of blood cancer

⇓

Recipro ⇒ b/w "22 & 9 chromosome"



GENE MUTATION
or point mutation

Gibberish Mutation

Substitution

One nitrogenous base

Genetic code ⇒ change.

one amino acid ⇒ one / rarely more than one

Two type's ..

Transition

1) Replacement of one purine by another purine

2) one pyrimidine by another pyrimidine.

Transversion

Replacement of

1) purine → pyrimidine

2) pyrimidine → purine

Mutagen ⇒ U.V rays

Frame shift mutation

Addition

nitrogenous base

DNA structure

genetic code

Deletion

loss of one and rarely more than one n_2 base.

in DNA structure.

genetic code

eg – Thalassemia

(lethal genetic disorder)

GENE MUTATION
or point mutation

Gibberish Mutation

Subsitution
One nitrogenous base
Genetic code ⇒ change
one amino acid ⇒ one / rarely more than nitrogenous base
Two type's ..

Transition
1) Replacement of one purine by another purine
2) One pyrimidine by another pyrimidine.

Transversion
Replacement of purine ↔ pyrimidine
1) purine → pyrimidine
2) pyrimidine → purine

Mutagen ⇒ U.V rays
↳ "Non ionising radiation"

Frame shift mutation

Addition
DNA

Deletion
loss of one and rarely more than one n_2 base in DNA structure.
genetic code
eg – Thalassemia
(lethal genetic disorder)

Muton → Unit of Mutation