

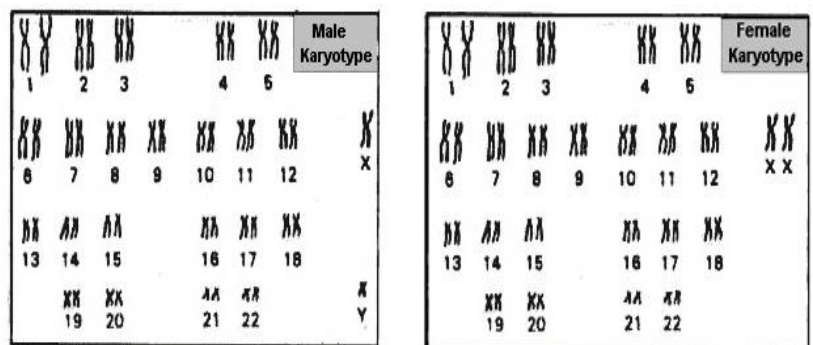
❖ Ch.1/Doc.2: Diploid & Haploid Cells ❖



❖ Differentiate between haploidy & diploidy.

- 1) Specify why human red blood cells aren't suitable for karyotyping.
- 2) Specify the cell division phase through which chromosomes are karyotyped.
- 3) Define "karyotyping".
- 4) State some advantages of karyotyping.
- 5) Draw a concept map which represents the different types of mutation.

Figure 1



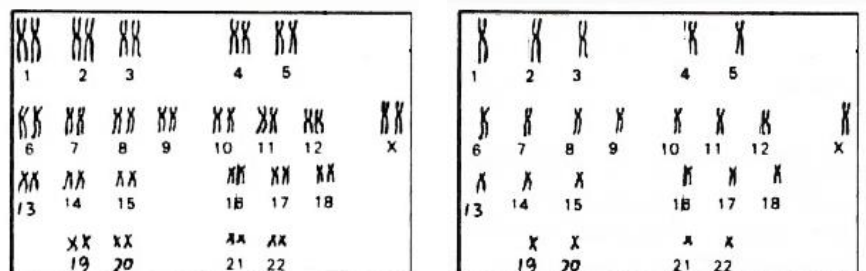
6) Draw a table which represents the names & the chromosomal formulas for the required aneuploidy abnormalities.

7) Figure 1 represents the karyotypes for two human white blood cells (WBC).

a. Identify the kind of cell that each of these karyotypes belongs to.

b. Compare both karyotypes.

Figure 2



Liver cell

Gamete

8) Figure 2

represents two karyotypes for cells belonging to the same human female.

- a. Compare the two karyotypes.
- b. Specify whether a male gamete can have a similar karyotype to that of the given female.
- c. The brain, liver, & WBC cells are examples on "somatic cells". Compare the karyotypes of the different kinds of somatic cells within the same individual.

9) Pro.3

- a. A somatic cell is a diploid cell while a gamete is haploid
Draw out a definition for "diploid cell" & "haploid cell".
- b. Identify the karyotypes of Doc.b & Doc.c / P.21 of LS textbook.
- c. Differentiate, in a table form, between the karyotypes of a somatic cell & that of a gamete.

10) Compare the karyotype of c1 with that of c2.



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