

# HUMAN KARYOTYPE FORM

_____	_____	_____	_____	_____
1	2	3	4	5
	A			
_____	_____	_____	_____	_____
6	7	8	9	10
			C	
_____	_____	_____	_____	_____
13	14	15	16	17
	D			
_____	_____	_____	_____	_____
19	20	21	22	X
	F			Y
				E
				B
				G

Sex chromosomes

Number of Chromosomes \_\_\_\_\_ Sex of Subject \_\_\_\_\_ Type of Disorder \_\_\_\_\_



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## Observations

1. How many autosomes are present in your karyotype? \_\_\_\_\_
2. How many sex chromosomes are present in your karyotype? \_\_\_\_\_
3. Are there any abnormalities? If so, where? \_\_\_\_\_  
\_\_\_\_\_

## Analysis and Conclusions

1. Is your karyotype that of a normal person or a person with a genetic disorder? If it is the latter, identify the disorder. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Is your karyotype that of a male or a female? Explain. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. How does the karyotype in Figure 4 differ from the karyotype in Figure 1? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. How does the karyotype in Figure 5 differ from the karyotype in Figure 1? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Do the karyotypes in Figures 4 and 5 exhibit any genetic disorder? If so, identify the disorder. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Critical Thinking and Application**

1. What happens during meiosis that ultimately results in a defect characterized by the addition of chromosomes? By the deletion of chromosomes? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. The human male determines the sex of his offspring. Explain this statement.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Going Further**

Using reference material, research the following human genetic disorders: Patau syndrome and Edwards syndrome. For each disorder find the cause, type of mutation, and characteristics. Construct a karyotype of each.