

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Hour: \_\_\_\_\_

## CHROMOSOME QUIZ

1. A human being has \_\_\_\_\_ of autosomes and \_\_\_\_\_ of sex chromosomes
  - a. 23 pairs, 1 pair
  - b. 22 pairs, 1 pair
  - c. 23 pairs, 23 pairs
  - d. 2 pairs, 2 pairs
  
2. Each chromosome consists of two identical:
  - a. genes
  - b. nuclei
  - c. chromatids
  - d. Bases
  
3. If a person receives an X and a Y chromosome, that person is:
  - a. female
  - b. male
  - c. red eyed
  - d. mentally challenged
  
4. A picture of a person's chromosomes is called a(n):
  - a. karyotype
  - b. syndrome
  - c. chromatin
  - d. Fingerprint
  
5. The point at which two chromatids of a chromosome connect is called...?
  - a. Histone
  - b. Spidle Fiber
  - c. Centromere
  - d. Nucleosome
  
6. DNA that makes up a chromosome is tightly coiled around proteins. What is the name given to these proteins?
  - a. Histones
  - b. Hemoglobin
  - c. Keritin
  - d. Antibodies

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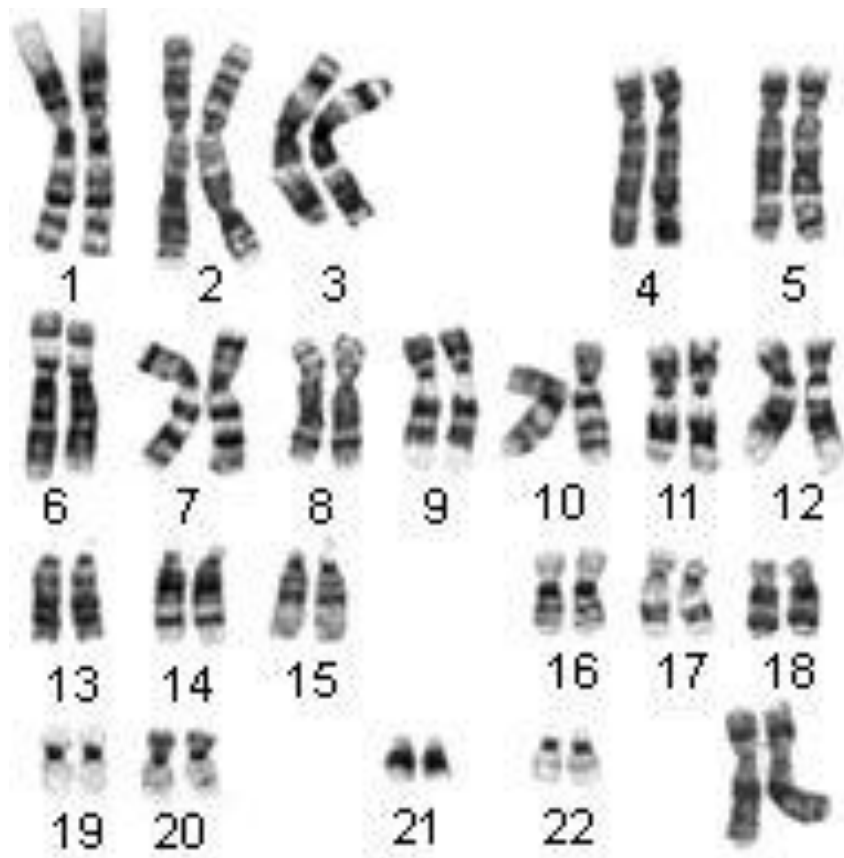
Using the karyotype below answer the questions 7-8.

7. Is this individual male or female?

- a. Male
- b. Female

8. How many TOTAL (NOT PAIRS) of chromosomes are in this karyotype?

- a. 23
- b. 22
- c. 47
- d. 46



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**ANSWER KEY**

1. B
2. C
3. B
4. A
5. C
6. A
7. B
8. D

**Bonus Questions Extra Credit**

Match the following genetic disorder with the chromosome abnormality (abnormal condition).

\_\_\_\_\_ **Cri du Chat**

A. Caused by a deletion in the #5 chromosome

\_\_\_\_\_ **Turner's Syndrome**

B. Extra X chromosome (XXY), affects males causing them to have less muscular body, grow little facial hair, and are infertile

\_\_\_\_\_ **Klinefelter Syndrome**

C. Also known as trisomy 21, a genetic disorder caused by the presence of all or part of a third copy of chromosome 21

\_\_\_\_\_ **Williams Syndrome**

D. Missing or incomplete X chromosome, affects girls causing them to be shorter than normal and affects puberty

\_\_\_\_\_ **Down's Syndrome**

E. Missing genetic material from #7 chromosome causing problems with circulatory system and heart defects