

*Name:*

*Date:*

## MEIOTIC ERRORS AND KARYOTYPING

1. What is the term for a missing chromosome in a karyotype?  
A. Trisomy  
B. Monosomy  
C. Polyploidy  
D. Aneuploidy
2. Which meiotic error can lead to the formation of gametes with no chromosomes?  
A. Nondisjunction in meiosis I  
B. Nondisjunction in meiosis II  
C. Both a and b  
D. Neither a nor b
3. What is the term for a karyotype showing the presence of an extra chromosome?  
A. Trisomy  
B. Monosomy  
C. Polyploidy  
D. Aneuploidy
4. Which staining technique is commonly used in karyotyping to visualize banding patterns on chromosomes?  
A. Gram staining  
B. Giemsa staining  
C. Acid-fast staining  
D. Trypan blue staining
5. Which meiotic error can lead to the formation of gametes with an extra set of chromosomes?  
A. Nondisjunction in meiosis I  
B. Nondisjunction in meiosis II  
C. Both a and b  
D. Neither a nor b
6. Which meiotic error can lead to aneuploidy in gametes?  
A. Crossover  
B. Nondisjunction  
C. Independent assortment  
D. Synapsis
7. What is the term for a karyotype showing an abnormal number of chromosomes?  
A. Euploid  
B. Aneuploid  
C. Polyploid  
D. Diploid
8. Which meiotic error can result in an extra copy of a chromosome in a gamete?  
A. Nondisjunction in meiosis I  
B. Nondisjunction in meiosis II  
C. Both a and b  
D. Neither a nor b
9. A karyotype showing 47 chromosomes in a human indicates:  
A. Monosomy  
B. Trisomy  
C. Polyploidy  
D. Balanced translocation
10. Which technique is used to obtain cells for karyotyping?  
A. Polymerase chain reaction (PCR)  
B. Gel electrophoresis  
C. Cell culture  
D. DNA sequencing