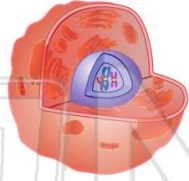




Name _____ Class _____ Date _____

1 In a human, what is the **ratio of the normal chromosome number** in a nucleus produced by **mitosis** to the normal chromosome number in a nucleus produced by **meiosis**?

- A 1:1
- B 2:1
- C 3:1
- D 4:1



2 The principles of **dominance**, **segregation**, and **independent assortment** were first described by

- A Watson
- B Linnaeus
- C Mendel
- D Morgan



3 In humans, the **gene for polydactyly (having extra fingers or toes) is dominant** over the gene for the normal number of digits. If parents who are both **homozygous dominant** for polydactyly have four children, how many of these children would most

4 A cross between two plants that have **pink flowers produced** plants that have **red, pink, or white** flowers. Which is the most likely explanation for these results?

- A Intermediate inheritance involved alleles that were not clearly dominant or recessive.
- B Mutations occurred during gametogenesis.



PREVIEW

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5 favorable variations
C not due to genetic changes and result in unfavorable variations
D not due to genetic changes and result in favorable variations

6 all the gametes produced by a population
D the mutated alleles for a particular trait



9 A homozygous condition resulting in the formation of **abnormal hemoglobin that distorts certain blood cells** is known as

- A hemophilia
- B phenylketonuria
- C Tay-Sachs
- D sickle-cell anemia



10 Using the results of his experiments with **plant crosses**, **Gregor Mendel discovered**

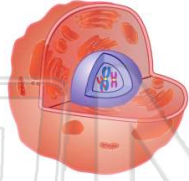
- A the principles of dominance, segregation and independent assortment
- B that pea plants develop mutation after exposure to radiation
- C intermediate inheritance and gene linkage
- D that DNA is involved in the inheritance of dominant traits



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