

Mitosis/Meiosis Review

Name _____

For the following questions, answer either mitosis or meiosis.

1. Produces HAPLOID Cells
2. One Division
3. DNA/Chromosomes are duplicated
4. Produces 2 Diploid Cells
5. Occurs in almost ALL cells in the body
6. Occurs in the Testes and Ovaries
7. Divides two times (2 cell divisions)
8. Cells produced are identical to one another and parent
9. Cells produced are DIFFERENT from one another
10. Maintains the Normal (diploid) number of chromosomes
11. Produces Gametes
12. A cell with 46 chromosomes divides producing 4 cells with 23 chromosomes.
13. A cell with 46 chromosomes divides producing 2 cells with 46 chromosomes

Answer the following questions.

14. If the haploid number for a fruit fly is 4, then it's diploid number would be _____
15. If a normal corn cell has 20 chromosomes, how many chromosomes would it have after meiosis?
16. Another word for sex cell is _____
17. The type of cell that results when a male gamete fertilizes a female gamete _____
18. A cell that contains the regular number of chromosomes, like all of our body cells is _____
19. When a male and a female gamete fuse together the process is called _____

20. Match the appropriate process with each description.
a. asexual reproduction b. sexual reproduction
 1. _____ Increases genetic variability
 2. _____ Recombines contributions from two parents
 3. _____ Produces the expected fruit or form
 4. _____ needs meiosis to produce cells

 5. _____ Only one parent is needed
 6. _____ A plant reproduces by making a seed
 7. _____ A plant is reproduced using a cutting (a piece of the plant)

DNA REVIEW

1. What is the building block (monomer) of DNA? What are the 3 things that form the building block?
2. Which of the following nitrogen bases of DNA below are matched up correctly?
 - a. Adenine-Guanine (A-G)
 - b. Thymine- Cytosine (T- C)
 - c. Guanine-Guanine (G-G)
 - d. Cytosine- Guanine (C-G)
3. If the following strand of DNA reads **ATCTAGCCA**, what would the complimentary strand read?
4. Your DNA is 99.9% identical to your peers. What do you know about DNA that can explain why you do not look anything like your peers?
5. What is DNA replication?
6. Describe the structure of DNA.
7. What two scientists are credited with discovering the structure of DNA?

Label the following parts of DNA.

Phosphate
Base pair

Sugar
Hydrogen bond

Nitrogen Base

Nucleotide

