

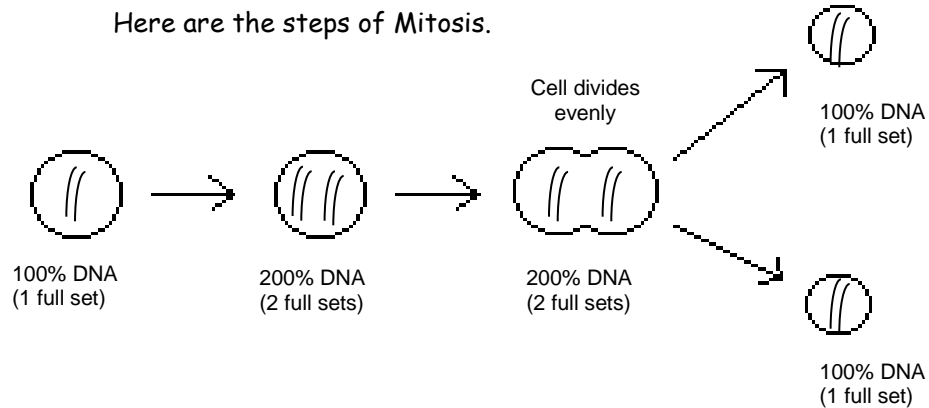
NAME:

PERIOD:

DATE:

MITOSIS, MEIOSIS & MORE: NOTE-TAKER

Follow along as the teacher puts the notes on the board. Fill in as you go along.



1. What is the purpose of Mitosis?

- **Mitosis makes new "body cells"**

- **Mitosis is used for:**

1. **Repair damage to an organism's body**
2. **Growth**
3. **Replace dead cells**

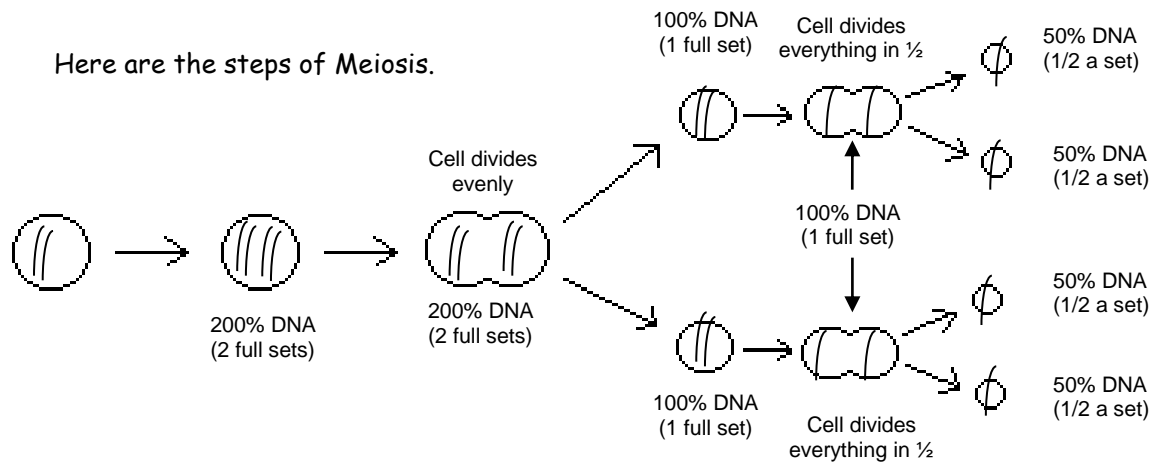
2. How many cells are there at the end of Mitosis?

- **Mitosis makes 2 new "body cells"**

3. How much genetic material (DNA) is there in each cell at the end of Mitosis?

- **Each "body cell" has 1 full set of DNA or 100% of the needed DNA**





4. What is the purpose of Meiosis?

- **Meiosis makes new "sex cells" for sexual reproduction. They can be sperm or eggs.**

5. How many cells are there at the end of Meiosis?

- **Meiosis makes 4 new "sex cells."**

6. How much genetic material (DNA) is there in each cell at the end of Meiosis?

- **Each "sex cell" has $\frac{1}{2}$ a set of DNA or 50% of the needed DNA**

7. Describe how Meiosis and Mitosis are related.

- **Mitosis and Meiosis both make new cells.**

- **Mitosis and Meiosis start out with the same steps, but then Meiosis has more.**

8. What is the scientific term used to describe when the male and female sex cells come in contact?

- **When the sperm and egg come together it is called fertilization.**

9. The new cell resulting from #8 is the first cell of a new organism. What is the scientific term used to describe this cell?

- **The first new cell of an organism (a fertilized egg) is called a zygote.**



10. What are the female and male sex cells?

- **The female sex cell is the egg.**
- **The male sex cell is the sperm.**

11. What is a gamete?

- **Gamete is another word for sex cells.**

Ex. The sperm and egg are the gametes.

12. What is the difference between sexual and asexual reproduction?

- **In sexual reproduction, sex cells are used. In asexual reproduction, sex cells are not used.**

13. When an organism is created by asexual reproduction, how does it compare to the original organism that created it?

- **An organism created by asexual reproduction has the same DNA as the "parent" organism. They are like clones of each other.**

14. List the three ways of asexual reproduction.

- **Regeneration - when a new organism grows from a piece of an existing organism**
Ex. A starfish arm grows back a starfish body while the body grows the arm back.
- **Fission - when a single celled organism splits in half to copy itself (uses Mitosis)**
Ex. bacteria multiply in this way
- **Budding - when a new organism grows out of the body of the parent organism**
Ex. A hydra forms a bud which "sprouts" from its body and later falls off as a new hydra.