Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I CAN** explain and describe how animal & plant cells produce more cells.

Period \_\_\_Date \_\_\_\_\_\_\_\_\_

**Cell Cycle NOTES**

\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ occurs in \_\_\_\_\_\_\_\_\_steps.

**1st Step**: (first stage) Chromosomes & organelles are \_\_\_\_\_\_\_\_\_\_\_ (# doubles)

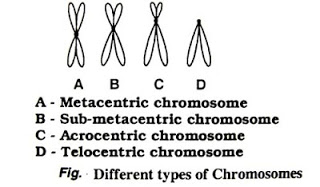
\_\_\_\_\_\_\_\_\_\_\_\_ The strands of DNA & proteins appear as threadlike coils (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)

After each chromosome is duplicated, the two copies are called

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_--(\_\_\_\_\_\_\_\_\_\_\_\_chromatids).

This ends this first stage of the cycle.

**MITOSIS** (second stage)

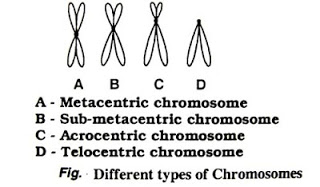
[](http://1.bp.blogspot.com/-7LwAsleF8do/UK6sPnj11HI/AAAAAAAAASo/m-iek4obB98/s1600/cell+biology+(10).JPG)

**2nd step** (1st phase): \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_begins \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_membrane breaks apart.

\_\_\_\_\_\_\_\_\_\_\_\_ begin to move to opposite ends of cell (ends called poles.)

\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_ form between the poles.

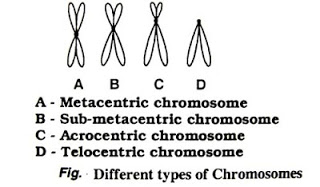
[](http://1.bp.blogspot.com/-7LwAsleF8do/UK6sPnj11HI/AAAAAAAAASo/m-iek4obB98/s1600/cell+biology+(10).JPG)

\_\_\_\_\_\_\_\_\_\_\_\_\_condense into rodlike structures.

\_\_\_\_\_\_\_\_\_\_\_\_\_ attach at the centromere.

**3rd step** (2nd phase):\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_ line up on the equator.

[](http://1.bp.blogspot.com/-7LwAsleF8do/UK6sPnj11HI/AAAAAAAAASo/m-iek4obB98/s1600/cell+biology+(10).JPG)

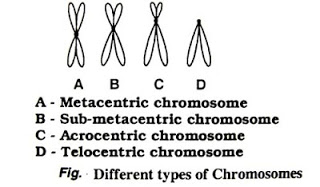
Sister

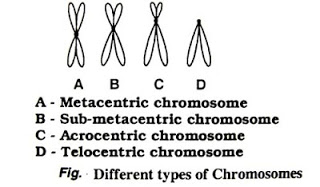
chromatids

**4th step** (3rd phase) :\_\_\_\_\_\_\_\_\_\_ Chromatids \_\_\_\_\_\_\_\_\_\_\_\_\_and are pulled to opposite sides of the

cell by the spindle fibers.

Sister

[](http://1.bp.blogspot.com/-7LwAsleF8do/UK6sPnj11HI/AAAAAAAAASo/m-iek4obB98/s1600/cell+biology+(10).JPG)

[](http://1.bp.blogspot.com/-7LwAsleF8do/UK6sPnj11HI/AAAAAAAAASo/m-iek4obB98/s1600/cell+biology+(10).JPG)

chromatids

split

**5th step** (4th phase) :\_\_\_\_\_\_\_\_\_\_\_ The nuclear membrane forms around the 2 sets of chromosomes forming two new \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Chromosomes unwind, the spindle fibers disappear.

Chromosomes appear as chromatin (\_\_\_\_\_\_\_\_\_\_\_\_rather than \_\_\_\_\_\_\_.)

\_\_\_\_\_\_\_\_\_\_\_\_ ends

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**6th step** (third stage) : The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_splits in two.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The cell membrane moves inward to create two identical cells called

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cells – each with its own \_\_\_\_\_\_\_\_\_\_\_\_ with identical

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_