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

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

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

**Cell Cycle NOTES**

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

**1st Step**: (first stage) The cell \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chromosomes & organelles are \_\_\_\_\_\_\_\_\_\_\_ (# doubles)

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

 This ends this first stage of the cycle.



**MITOSIS** (second stage)

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

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_membrane dissolves.



 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_condense—shorten and thicken.

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

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -- - - - - - - - - - - - - - - - - - - - - - - - - - - - -- - - - - - - - -

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

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

Sister chromatids



- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -- - - - - - - - - - - - - - - - - - - - - - - - - - - - -- - - - - - - - -

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

 cell by the spindle fibers.

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

 Sister





 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.

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

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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

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

 These two new cells are called daughter cells.