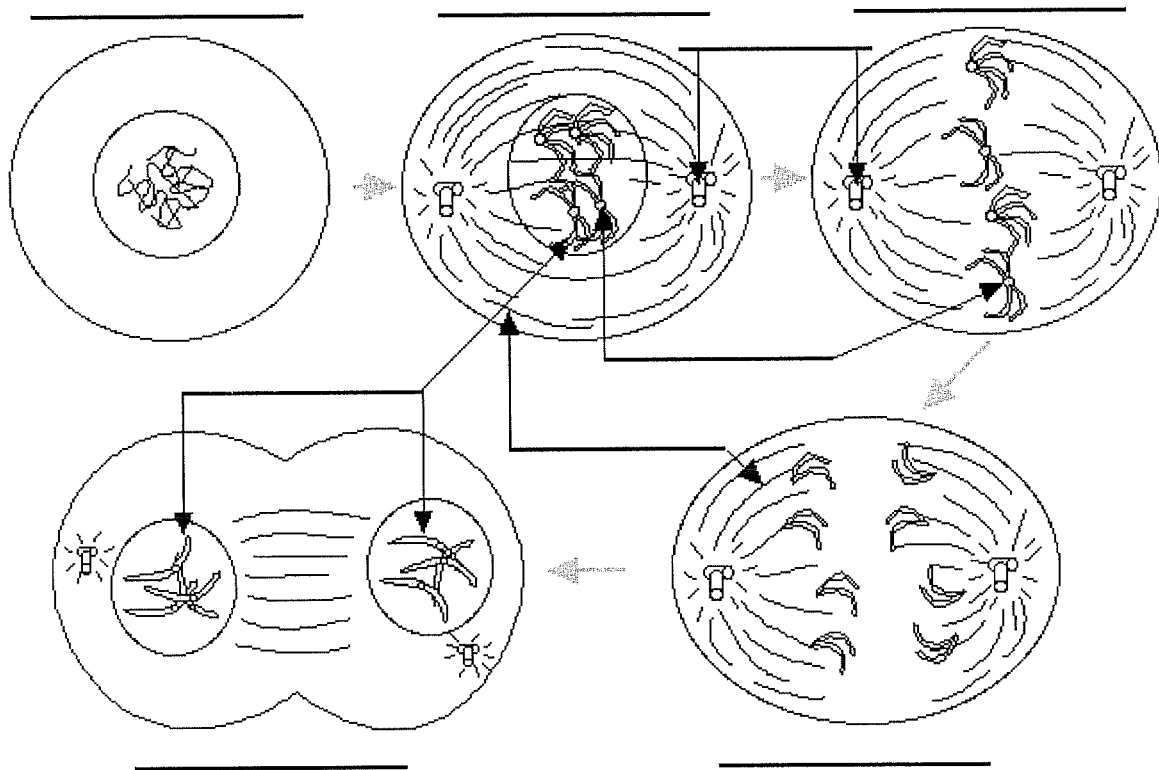


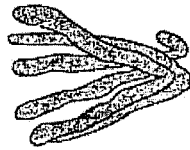
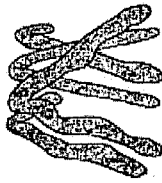
Name: _____

1. Label the following diagram of the cell cycle of an animal cell.

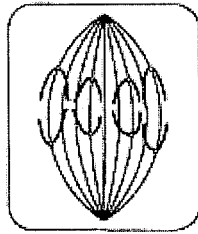


2. During which stage of a cell's cycle do the replicated chromosomes thicken and become visible? _____
3. In animal cells, which structure is thought to produce the spindle fibers that help separate the sister chromatids during anaphase? _____
4. Is this structure found in plant cells? _____

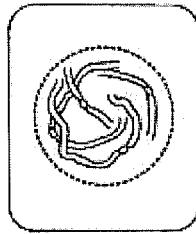
5. The drawing below has been made from a photograph showing a cell undergoing mitosis. Based on the drawing, in what stage of mitosis must the cell have been in?



6. The drawings A-E show stages of the cell cycle in a plant cell.



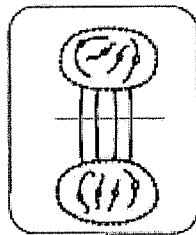
A



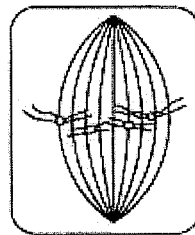
B



C



D

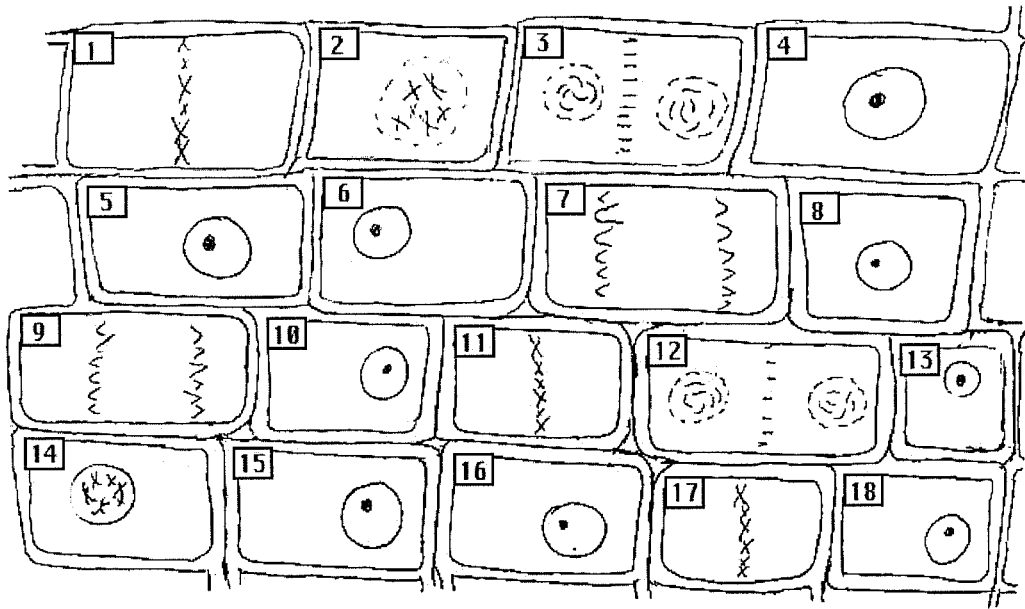


E

- (a) Which of the drawings A -E shows
- interphase _____ (**DNA** is replicated)
 - prophase _____ (**chromosomes – 2 sister chromatids** – shorten)
 - metaphase _____ (**sister chromatids** line up)
 - anaphase _____ (**sister chromatids** separate)
 - telophase _____ (new nucleus forms at each end)
 - cytokinesis _____ (cell contents divided between 2 **daughter cells**)
- (b) Give two processes which occur during interphase and which are necessary for nuclear division to take place.

_____ of the cell and _____ of the DNA

7. This drawings shows various stages of ^{the} cell cycle in a fast growing onion root tip.



Identify the cells (by number) which are in the following stages of the cell cycle:

- interphase _____
- prophase _____
- metaphase _____
- anaphase _____
- telophase _____

8. Using colored pens or pencils, show how 2 chromosomes are passed from mother cell to two daughter cells.

