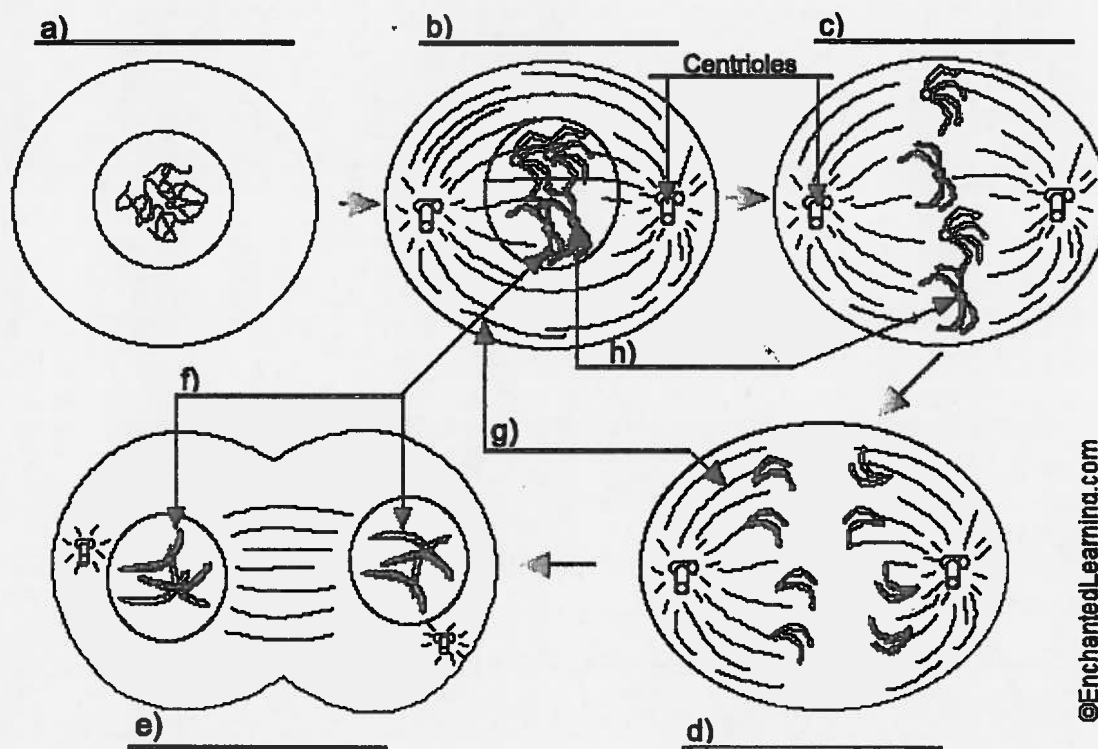


Mitosis Worksheet

1. Label the following diagram with the phase of mitosis, (a) through (e), or the type of cell structure, (f) through (h), seen during mitosis.



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- During which stage of a cell's cycle do the replicated chromosomes thicken and become visible? _____
- During which stage of a cell's cycle do the replicated chromosomes line up on the equator of the cell? _____
- During which stage of a cell's cycle do the chromosomes replicate? _____

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 mitosis in an plant cell.



A



B



C



D



E

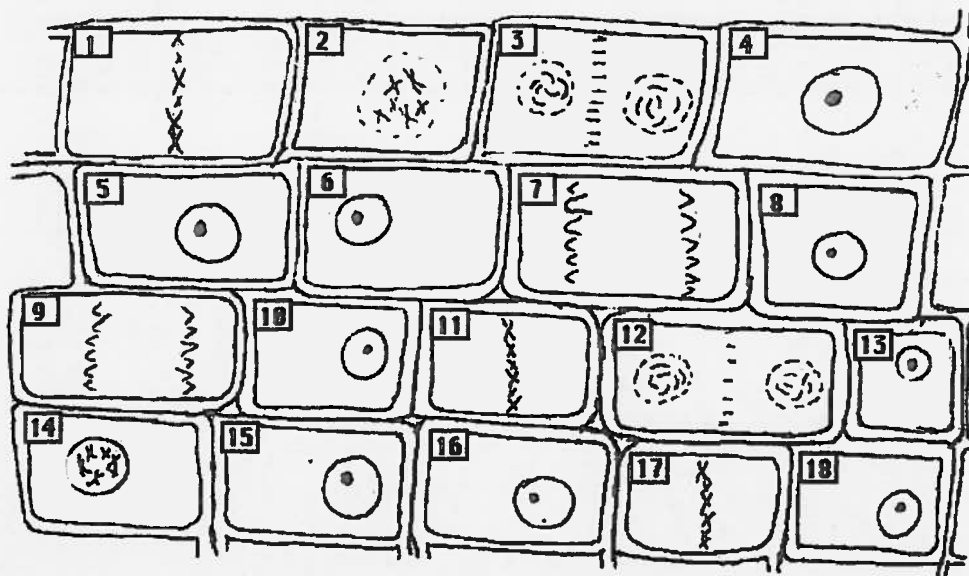
- (a) Which of the drawings A -E shows

- (i) interphase _____ (DNA is replicated)
- (ii) prophase _____ (chromosomes – 2 sister chromatids – shorten)
- (iii) metaphase _____ (sister chromatids line up)
- (iv) anaphase _____ (sister chromatids separate)
- (v) telophase _____ (new nucleus forms at each end)
- (vi) cytokinesis _____ (cell contents divided between 2 daughter cells)

- (b) Give two processes which occur during interphase and which are necessary for mitosis to take place.

_____ of the cell and _____ of the DNA

7. This drawings shows various stages of mitosis in a fast growing onion root tip.



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

interphase _____
 prophase _____
 metaphase _____
 anaphase _____
 telophase _____

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

