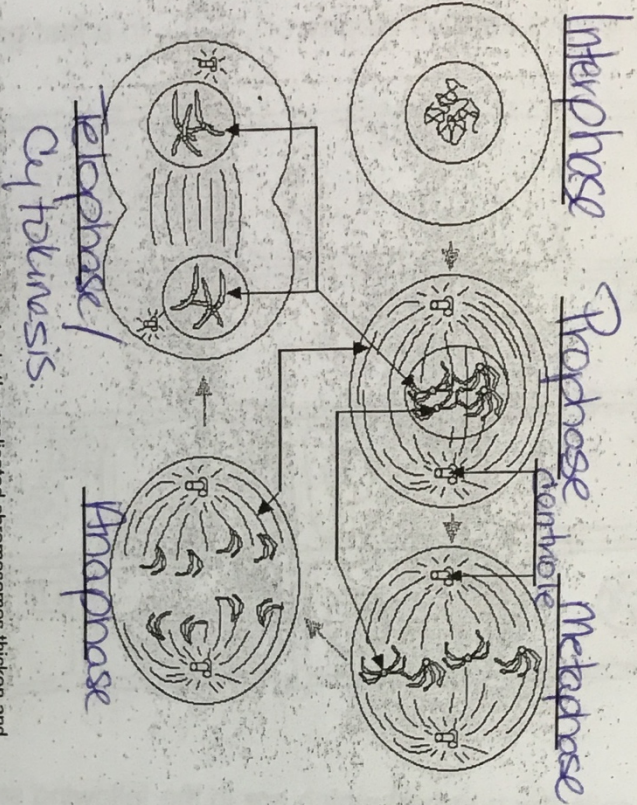


Science 10

Mitosis Worksheet

Name: Answer

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



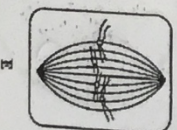
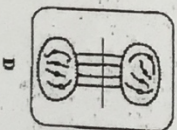
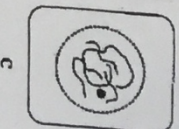
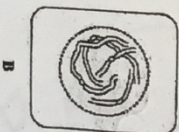
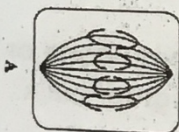
- During which stage of a cell's cycle do the replicated chromosomes thicken and become visible? prophase
- In animal cells, which structure is thought to produce the spindle fibers that help separate the sister chromatids during anaphase? centriole
- Is this structure found in plant cells? No

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?



Anaphase

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



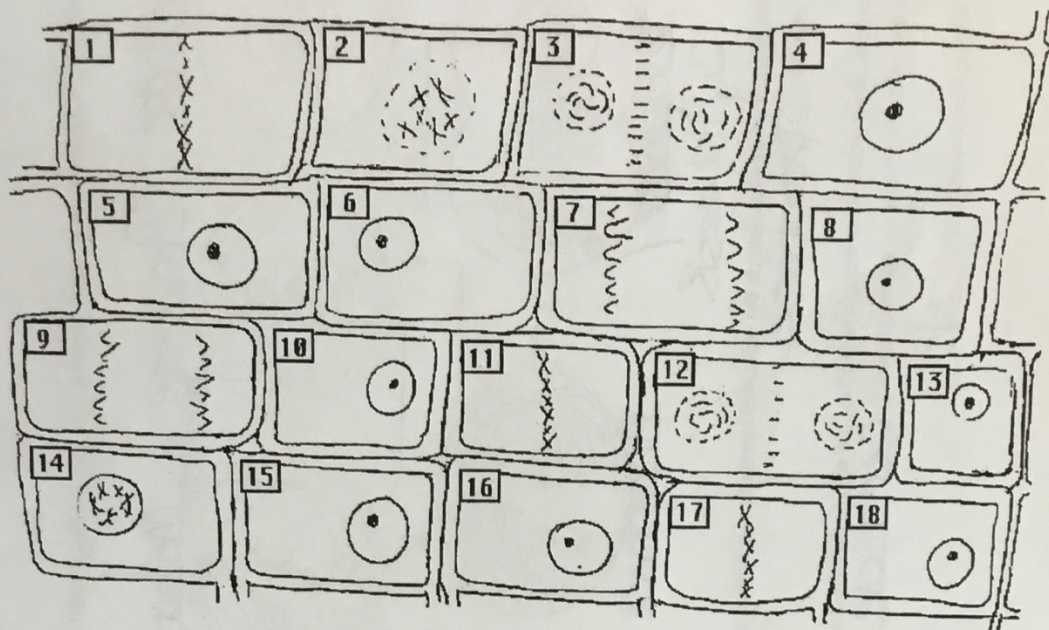
(a) Which of the drawings A-E shows

- interphase C (DNA is replicated)
- prophase B (chromosomes - 2 sister chromatids - shorten)
- metaphase E (sister chromatids line up)
- anaphase A (sister chromatids separate)
- telophase D (new nucleus forms at each end)
- cytokinesis D (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.

growth of the cell and replication 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 4, 5, 6, 8, 10, 13, 15, 16, 18
 prophase 2, 14
 metaphase 1, 11, 17
 anaphase 7, 9
 telophase 3, 12,

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

