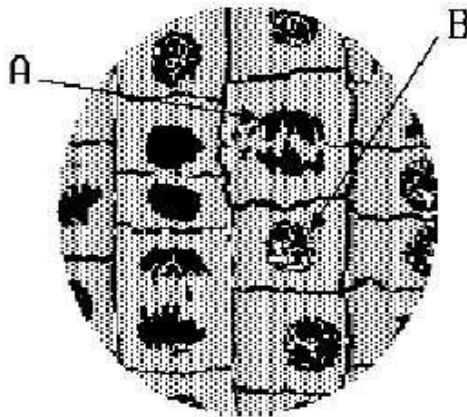


## Mitosis: Practice Questions # 1

1. As a result of mitotic cell division, a cell having 80 chromosomes gives rise to two cells each of which has a chromosome number of  
(1.) 10 (2.) 20 (3.) 40 (4.) 80
2. The process of mitosis insures equal distribution to the new cells of the  
(1.) mitochondria (2.) cytoplasm (3.) chromosomes (4.) chloroplasts
3. The uncontrolled division of abnormal cells may result in  
(1.) hemophilia (2.) Down syndrome (3.) cancer (4.) albinism
4. The chromosomes in the young plants growing from the leaf are produced by  
(1.) mitosis (2.) meiosis (3.) sporulation (4.) buds

Use the diagram below and your knowledge of the living environment to assist you in answering questions 5 through 7 below.



5. Identify the structure indicated by arrow A.

---

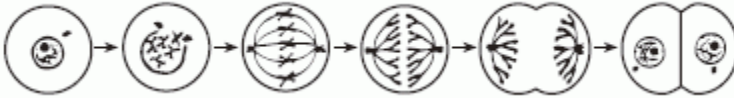
6. The illustration demonstrates stages in the process of
- (1) chlorophyll production in chloroplasts
  - (2) mitotic cell division in plants
  - (3) water conduction in onions
  - (4) meiosis in root tips

7. Identify the structure indicated by arrow B.

---

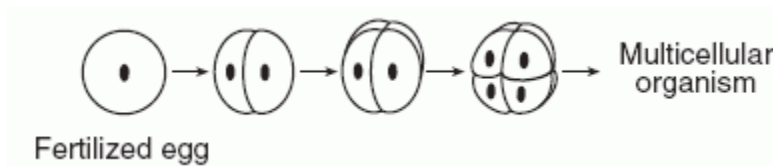
8. If an organism reproduces sexually, its offspring will most likely be  
 (1.) genetically identical to the parent (2.) genetically different from each other (3.) produced as a result of in vitro fertilization (4.) produced from specialized cells known as somatic cells
9. The presence of a cancerous mass in the lung is a direct result of  
 (1.) the introduction of toxins through breaks in the skin (2.) prolonged exposure to very dry air (3.) the uncontrolled division and growth of abnormal cells (4.) meiotic division of normal cells
10. A structure found during animal cell mitosis that is NOT found during plant cell mitosis is a  
 (1.) centriole (2.) cell plate (3.) cell membrane (4.) mitochondrion

11. Which activity most directly involves the process represented in the diagram below?



- A. a gamete reproducing sexually  
 B. a white blood cell engulfing bacteria  
 C. a zygote being produced in an ovary  
 D. an animal repairing damaged tissue

12. Which phrase best describes a process represented in the diagram below?



- A. a zygote dividing by mitosis  
 B. a zygote dividing by meiosis  
 C. a gamete dividing by mitosis  
 D. a gamete dividing by meiosis

13. If a chemical that interrupts cell division is added to a culture of human liver tissue, which process would stop?

- A. meiosis  
 B. mitosis  
 C. breakdown of glucose  
 D. diffusion of nutrients

## Answer Key: Mitosis 1

1. 4
2. 3
3. 3
4. 1
5. Chromosome
6. 2
7. Nucleus or nuclear membrane
8. 2
9. 3
10. 1
11. D
12. A
13. B