

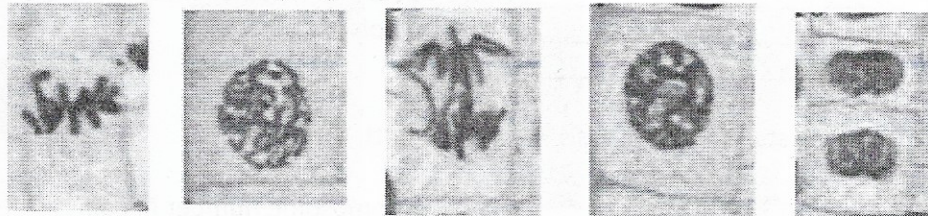
Chromosomes, Mitosis & Meiosis Review

Name: Key
 Date:
 Block:

1. Match the following:

- | | |
|--|----------------------|
| <u>c</u> Loose strands of DNA & protein | a. Chromosome |
| <u>a</u> Condensed form of DNA | b. Centromere |
| <u>d</u> Together, these make up equal parts of a chromosome | c. Chromatin |
| <u>b</u> The point at which two chromatids are joined | d. Sister Chromatids |

2. Identify each of the following steps:

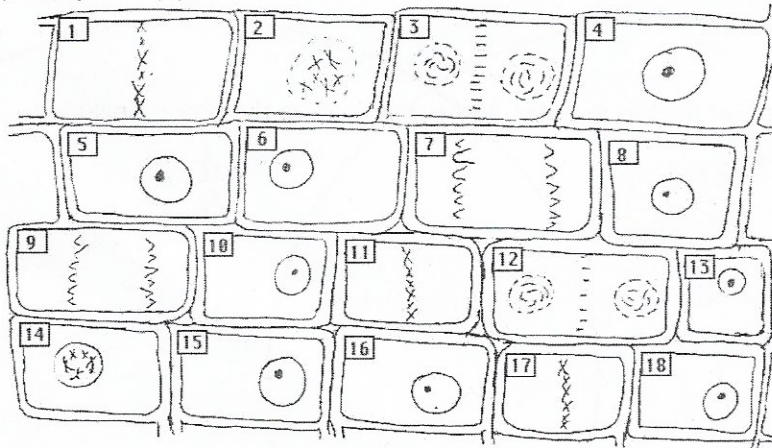


A B C D E
metaphase prophase Anaphase Interphase telophase

3. Using the letters from the picture above, place the steps in the correct order of the cell cycle.

1: D 2: B 3: A 4: C 5: E

4. Examine the 18 drawings of the cells below. Write a letter of the stage of the cell cycle in the spaces below. Choices: Interphase (I), Prophase (P), Metaphase (M), Anaphase (A), Telophase (T)



1	M	2	P	3	T	4	I	5	I	6	I
7	A	8	I	9	A	10	I	11	M	12	T
13	I	14	P	15	I	16	I	17	M	18	I

During which stage of the cell cycle do the following events take place? Choices: Interphase, Prophase, Metaphase, Anaphase, Telophase

1. Anaphase Chromosomes are split in half with each chromatid moving towards one end of the cell
2. Interphase DNA created or duplicated
3. Telophase Nucleus reforms
4. Prophase Chromatin winds into chromosomes
5. Prophase Spindle fibers form
6. Metaphase Spindle fibers attach to centromeres of chromosomes
7. Interphase Cell performs its normal function
8. Metaphase Spindle fibers pull chromosomes to middle of the cell
9. Prophase Nucleus dissolves
10. Interphase Cell enlarges

Are the following statements Mitosis, Meiosis or both?

1. meiosis Cuts the chromosome number in half
2. meiosis Part of sexual reproduction
3. Both The process if followed by cytokinesis
4. mitosis Keeps the chromosome number the same
5. mitosis 1 division
6. meiosis Creates 4 cells
7. meiosis Makes the gametes (egg and sperm)
8. meiosis Creates variation
9. mitosis Makes two identical daughter cells
10. mitosis Part of asexual reproduction
11. mitosis Makes the body cells
12. Both Involves the division of the nucleus to create new nuclei

1. Draw the stages of mitosis in order. Make sure to have the phases included.

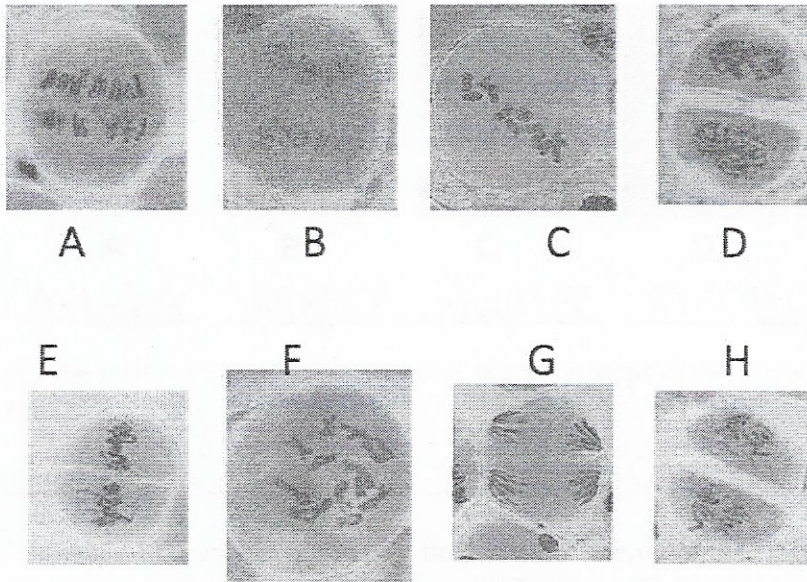
2. Mitosis creates which cells? Circle all that apply

Skin Nerve Blood Egg Sperm Skin Brain

3. Meiosis creates which cells? Circle all that apply

Skin Nerve Blood Egg Sperm Skin Brain

4. In the space to the right, place the steps of meiosis in the correct order; label each stage as well. Number 1 has been completed for you



1. F - Prophase I
2. C - metaphase I
3. A - Anaphase I
4. B - Telophase I
5. D - Prophase II
6. E - Metaphase II
7. H - Anaphase II
8. G - Telophase II

5. Use the Venn Diagram to compare and contrast Mitosis and Meiosis

