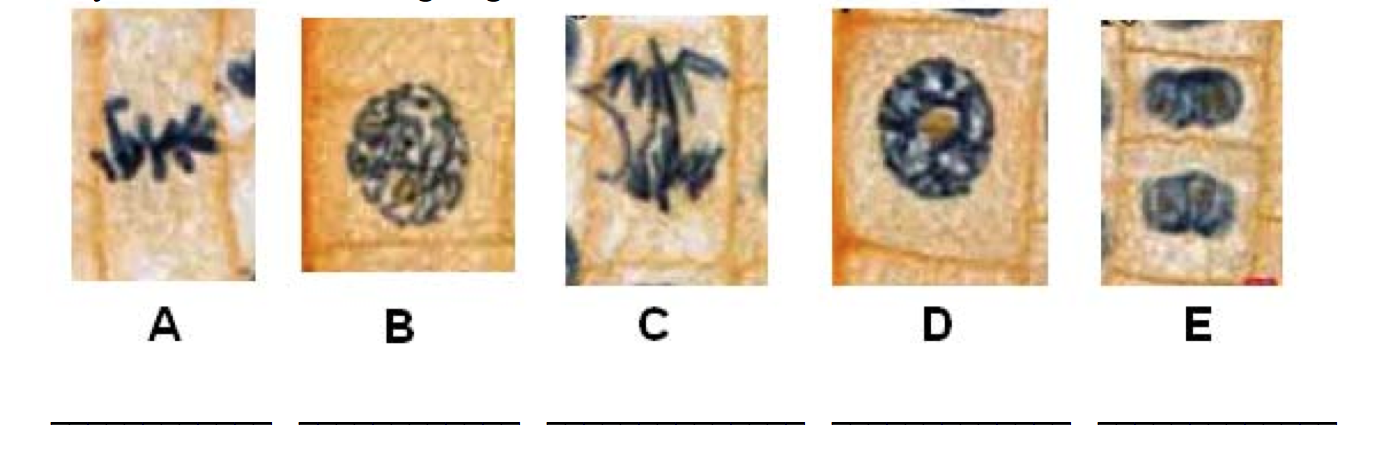
|  |  |
| --- | --- |
| **Biology 11**  **Chromosomes, Mitosis & Meiosis Review** | **Name: Date:**  **Block:** |

1. Match the following:

|  |  |
| --- | --- |
| \_\_\_\_\_\_ Loose strands of DNA & protein  \_\_\_\_\_\_ Condensed form of DNA  \_\_\_\_\_\_ Together, these make up equal parts of a chromosome  \_\_\_\_\_\_ The point at which two chromatids are joined | 1. Chromosome 2. Centromere 3. Chromatin 4. Sister Chromatids |

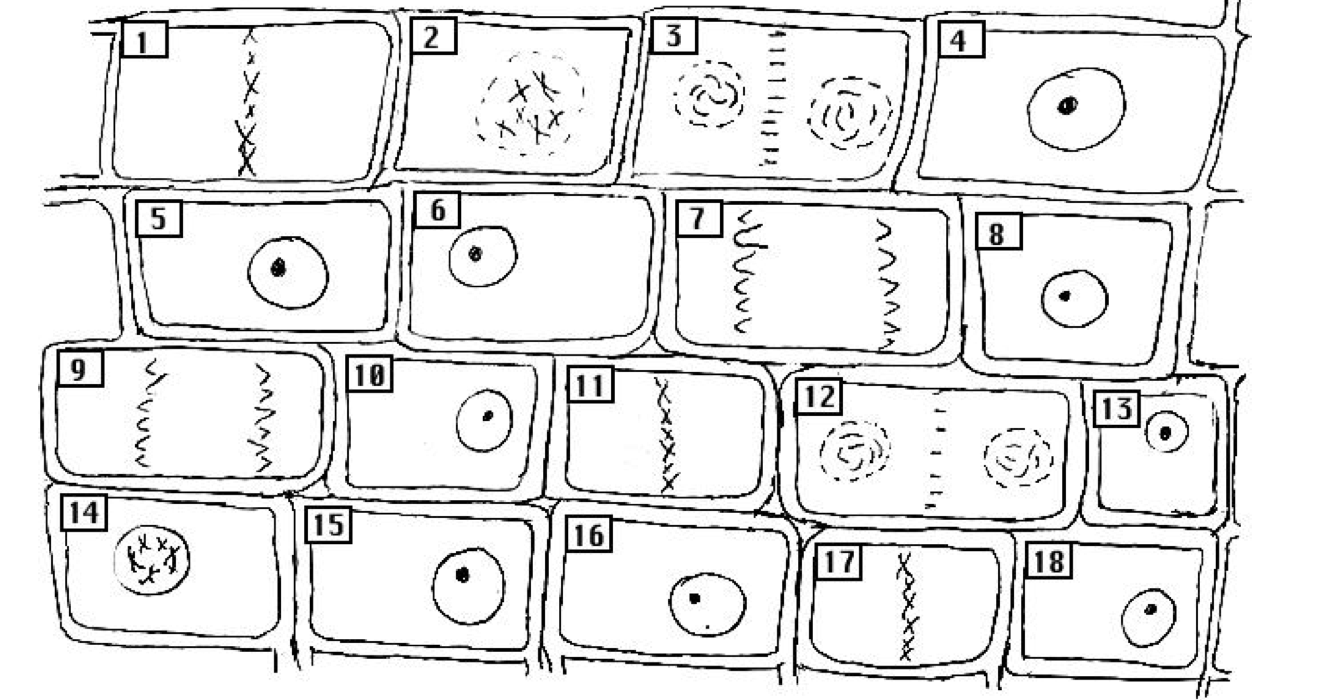
1. Identify each of the following steps:



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

1: \_\_\_\_\_\_\_\_\_\_ 2: \_\_\_\_\_\_\_\_\_\_ 3: \_\_\_\_\_\_\_\_\_\_ 4: \_\_\_\_\_\_\_\_\_\_ 5: \_\_\_\_\_\_\_\_\_\_

1. 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 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 |

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

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

Are the following statements Mitosis, Meiosis or both?

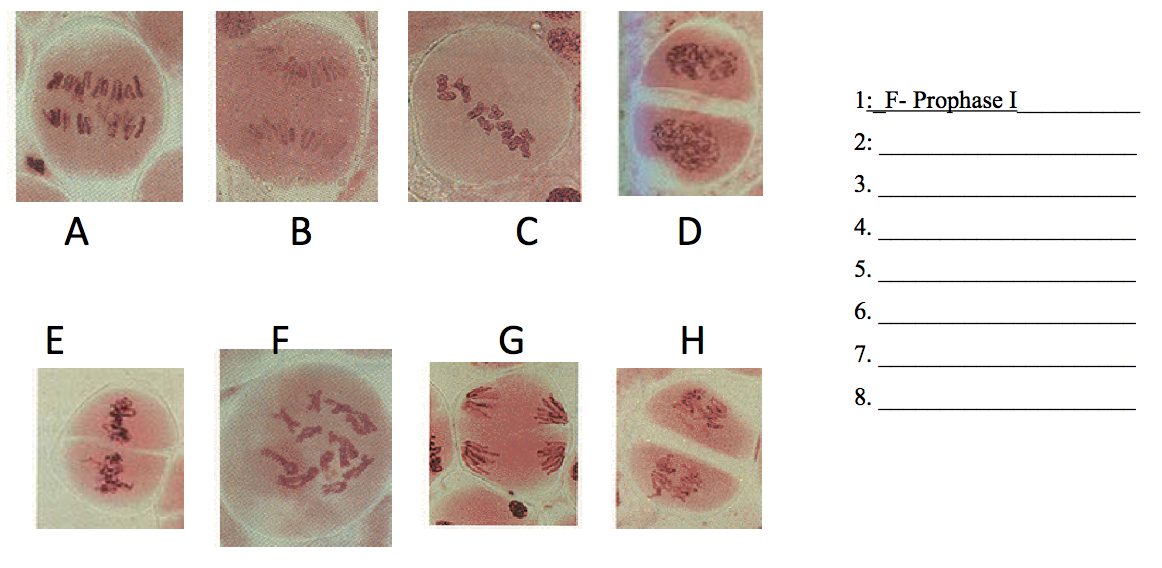
1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Cuts the chromosome number in half
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Part of sexual reproduction
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ The process if followed by cytokinesis
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Keeps the chromosome number the same
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 division
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Creates 4 cells
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Makes the gametes (egg and sperm)
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Creates variation
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Makes two identical daughter cells
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Part of asexual reproduction
11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Makes the body cells
12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Involves the division of the nucleus to create new nuclei
13. Draw the stages of mitosis in order. Make sure to have the phases included.
14. Mitosis creates which cells? Circle all that apply

Skin Nerve Blood Egg Sperm Skin Brain

1. Meiosis creates which cells? Circle all that apply

Skin Nerve Blood Egg Sperm Skin Brain

1. 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. Use the Venn Diagram to compare and contract Mitosis and Meiosis