Cell Division

1. Cell size is limited by:
2. Cell membrane size –
3. Small cells have
4. Large cells have
5. Nuclear control –
6. Reasons for cell division
7. Growth
8. Differentiation –
9. Repair
10. Regeneration –
12. Reproduction
13. Asexual reproduction –



1. Sexual reproduction –
2. The Cell Cycle
3. Interphase – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – \_\_\_\_\_\_\_ of total time
4. G1 – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. S – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. G2 – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Chromosomes
8. Chromatin –
9. Sister chromatids –
10. Centromere –
11. Cell Division
12. Mitosis –
13. Cytokinesis –
14. Stages of Mitosis
15. Prophase
17. Metaphase
19. Anaphase
21. Telophase
22. Cytokinesis
23. Animal cells
24. Cleavage furrow –
26. Plant cells

Asexual reproduction –

Sexual reproduction –

Meiosis –

Gametes –

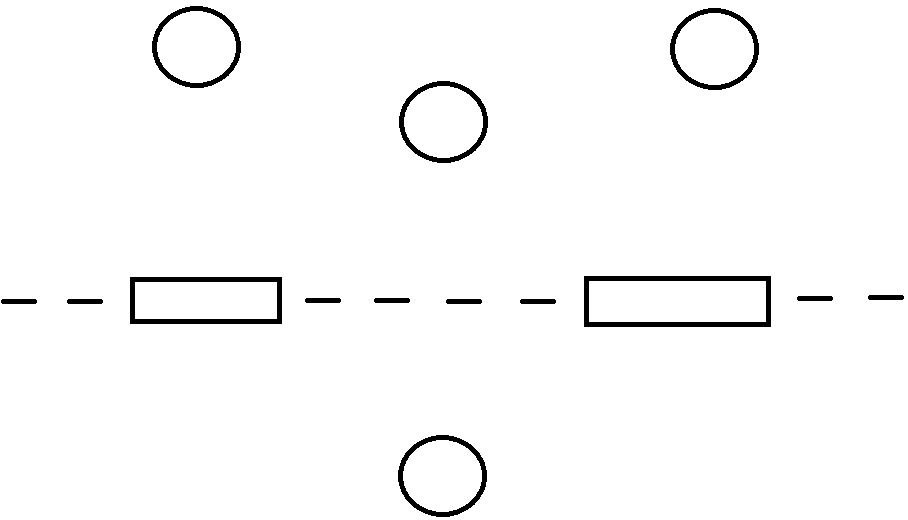
Diploid –

Haploid –

All gametes are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Why can’t gametes divide using Mitosis?





All human cells, except for sex cells, contain \_\_\_\_\_\_ chromosomes arranged in \_\_\_\_\_\_\_ pairs

Homologous pairs –

Sex chromosomes –

XX –

XY –

Spermatogenesis –



Oogenesis –



|  |  |  |
| --- | --- | --- |
| Comparing Mitosis and Meiosis | | |
|  | Mitosis | Meiosis |
| 2 divisions |  |  |
| 1 division |  |  |
| 4 daughter cells produced |  |  |
| 2 daughter cells produced |  |  |
| Asexual reproduction |  |  |
| Sexual reproduction |  |  |
| Duplicates chromosomes |  |  |
| Chromosome # stays same |  |  |
| Chromosome # is halved |  |  |
| Daughter cells identical to parent |  |  |
| Daughter cells different from parent |  |  |

Regulating the Cell Cycle

1. Not all cells move through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Nerve cells –

Skin cells –

Cells of digestive tract –

Most muscle cells –

1. Healing process –

Cyclins –

Internal regulators –

External regulators –

1. What happens if cell growth isn’t regulated?
2. What causes cells to lose control over growth?