|  |  |
| --- | --- |
| A form of ***asexual*** reproduction  Mitosis | Necessary for ***sexual*** reproduction  Meiosis |
| Produces **gametes**  Meiosis | Produces **somatic** cells  Mitosis |
| Necessary to heal injuries and replace dead cells  Mitosis | Takes place in reproductive organs  Meiosis |
| DNA duplicates only **once**  Both! | Utilizes a series of steps to move replicated chromosomes  Both! |
| Involves ***two*** divisions of the nucleus  Meiosis | Involves ***one*** division of the nucleus  Mitosis |
| Produces ***two daughter cells***  Mitosis | Produces ***four daughter cells***  Meiosis |
| Daughter cells are **diploid**  Mitosis | Daughter cells are **haploid**  Meiosis |
| Daughter cells are ***genetically different*** from parent  Meiosis | Daughter cells are ***identical*** to parent  Mitosis |
| **Crossing over** occurs  Meiosis | ***Pairing up*** of homologous chromosomes  Meiosis |
| Takes place all over body  Mitosis | Known as “*reduction division*”  Meiosis |
| Process of cell division  Both! | Interphase takes place prior to cell division  Both! |
| 4 stages  Mitosis | 8 stages  Meiosis |

**MEIOSIS**

**MITOSIS**