|  |  |
| --- | --- |
| A form of ***asexual*** reproductionMitosis | Necessary for ***sexual*** reproductionMeiosis |
| Produces **gametes**Meiosis  | Produces **somatic** cellsMitosis |
| Necessary to heal injuries and replace dead cellsMitosis | Takes place in reproductive organsMeiosis |
| DNA duplicates only **once**Both! | Utilizes a series of steps to move replicated chromosomesBoth! |
| Involves ***two*** divisions of the nucleusMeiosis | Involves ***one*** division of the nucleusMitosis |
| 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 parentMeiosis | Daughter cells are ***identical*** to parentMitosis |
| **Crossing over** occursMeiosis | ***Pairing up*** of homologous chromosomesMeiosis |
| Takes place all over bodyMitosis | Known as “*reduction division*”Meiosis |
| Process of cell divisionBoth! | Interphase takes place prior to cell divisionBoth! |
| 4 stagesMitosis | 8 stagesMeiosis |

**MEIOSIS**

**MITOSIS**