

Quiz Section 2 – Homework Questions

Errors in Meiosis

- I. Sister kinetochores not attached to each other; no loci/alleles marked
- II. No crossovers
- III. Ploidy incorrect (tetraploid depicted instead of diploid); R locus shown as paired with Y; alleles only marked on one chromatid per homologue
- IV. Ploidy incorrect; chromosomes are unreplicated
- V. Sister chromatids non-identical
- VI. Ploidy incorrect for metaphase I -- no homologous chromosomes present

Nondisjunction

The DRr gamete could be a result of a single nondisjunction in either Meiosis I or Meiosis II

Alien Meiosis

Earth	Mars
A, B	3, 4
C	5
E	1
C	1
C	5
before	before

For Martian meiosis to work, cohesins would need to be able to assemble around replicated chromatids **and then again around unreplicated homologues as they were paired.**