Molecular Morphology

Use the terms provided, and/or the different stages of mitosis (1 PROPHASE) mentioned (2), including morphase in the proper sequence.

1. 2nd metaphase I _____ Interchromatin chromosomes line up in the center of the cell
2. 1st metaphase I _____ spindle fibers pull homologous pairs to ends of the cell
3. 9th Ethiophase III _____ A haploid (7%) daughter cells forms
4. 1st _____ cells undergo a second set DNA replication
5. 1st metaphase III _____ where chromatids separate (look each other
6. 6th Ethiophase II _____ 2 haploid (7%) daughter cells form
7. 1st Prophase I _____ spindle fibers attach to the homologous chromosome pairs
8. 8th _____ individual chromatids moved to each end of the cell
9. 2nd prophase I _____ crossing over (if any) occurs

10. Compare the number and type of cells that result from meiosis vs. mitosis.
Mitosis 2 diploid cells, that are exactly cell cells that are not gametes) and identical to each other and to the parent cell_____
_____
Meiosis makes 4 haploid cells that are gametes and are all different from each other and from the parent cell_____
_____

11. How do the genetic contents of cells resulting from mitosis and meiosis differ?
Mitosis are identical, while meiosis is not identical_____
_____

12 If a diploid cell containing 20 chromosomes undergoes meiosis, how many chromosomes will each daughter cell have?
10_____

Read each statement, then use the first words above the phase of mitosis or meiosis that the action occurs. If the action occurs in both, write both. The first one is done for you.

1._____ **metaphase I meiosis** Interchromatin chromosomes line up in the center of the cell
2 **anaphase III meiosis** & **anaphase mitosis**_____ The individual chromatids separate
3. **anaphase I meiosis**_____ spindle fibers pull homologous pairs to ends of the cell
4. **Ethiophase III meiosis**_____ A haploid (7%) daughter cells form
5. **heterophase meiosis and mitosis**_____ cells undergo a second DNA replication
6. **morphase mitosis/ metaphase III meiosis (metaphase)** The chromosomes line up across the middle of the cell.
7. **prophase I, Prophase III meiosis, prophase mitosis** Chromosomes become visible.
8. **anaphase mitosis, anaphase III meiosis**_____ where chromatids separate (look each other
9. _____ **Ethiophase I meiosis** 2 haploid (7%) daughter cells form
10. **____anaphase III meiosis, anaphase mitosis** Where chromatids separate (are individual chromosomes).
11. **Ethiophase I and III meiosis, Ethiophase mitosis** Nucleus reconstructed.
12._____ **prophase I meiosis** spindle fibers attach to the homologous chromosome pairs
13. **____anaphase III meiosis, anaphase mitosis** individual chromatids moved to each end of the cell
14. **prophase I and III meiosis, prophase mitosis** The nucleolus disappears and the nuclear envelope breaks down.
15. **____prophase III meiosis, prophase mitosis** Each chromosome is composed of a spindle fiber.