

Name: _____
Mr. Willis
Biology: _____
Date: _____

Unit VI
Biology – Mitosis and Meiosis
Need extra help?
Check out <http://www.nwrlbiology.com>

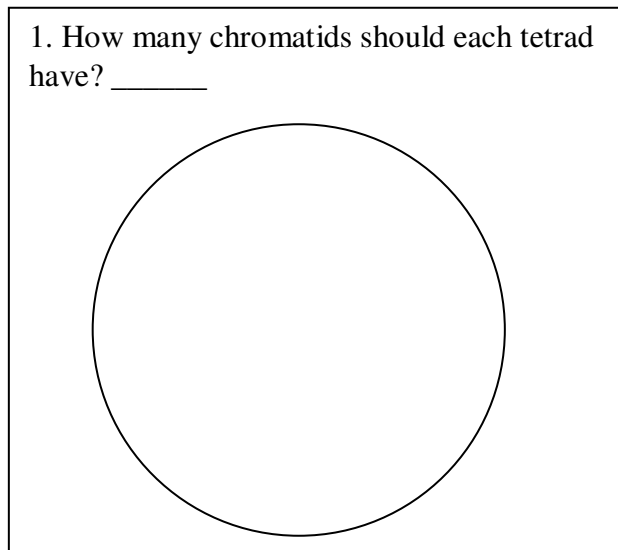
VI

Meiosis Under a Microscope

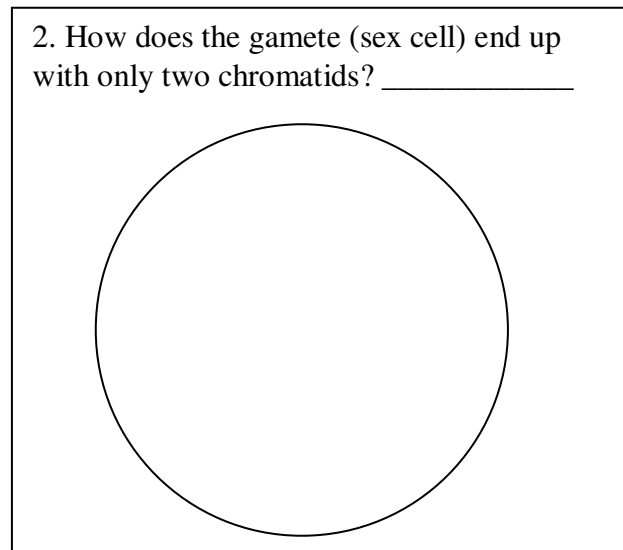
Use the micro-slide-viewer to observe the slides of various aspects of Meiosis. Follow the directions in the Card File that comes with the viewer. Be sure to read the entire card in order to find the answers to the following questions.

1. When a sperm nucleus and an egg nucleus fuse together what is formed? _____
2. The normal number of chromosomes contained in a human somatic (body) cell is _____.
3. Although the process of cell division called Mitosis results in cells with the same number and the same kind as the mother (parent) cell, Meiosis results in cells that in humans have only _____ chromosomes.
4. The term *diploid* implies that there are 2 _____ of chromosomes.
5. Pairs of chromosomes that have similar genes are called _____ chromosomes.
6. Meiosis makes certain that each gamete gets only _____ chromosome from each pair in the parent cell.
7. Why is *Ascaris* used in the study of Meiosis? _____
8. The diploid number (total number of chromosomes in each somatic cell) for *Ascaris* is _____?
9. Each slide is a photograph of very thin slices of *Ascaris* _____.
10. The magnification that is being used in these slides is _____.

Draw sketches of each of the eight (8) slides that you will be observing. Be sure to include the labels. Then, use the information for each slide to answer the question.

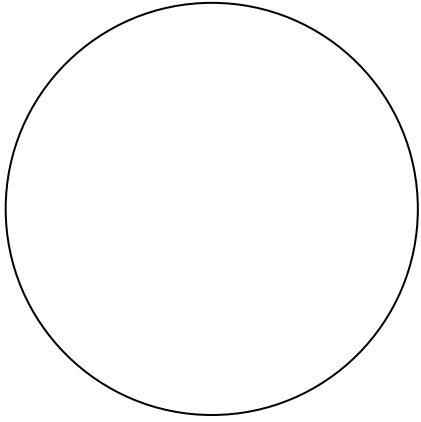


Slide 1 – Primary Oöcyte – Tetrads Formed



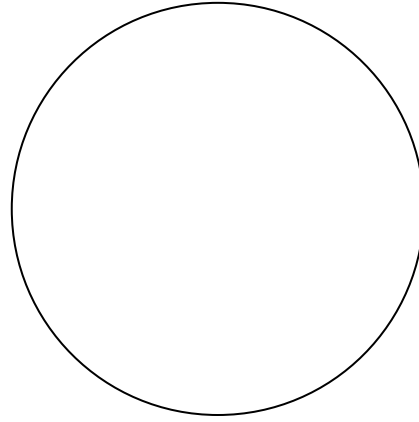
Slide 2 – Primary Oöcyte – Dyads separated

3. How many chromatids remain in each oöcyte? _____



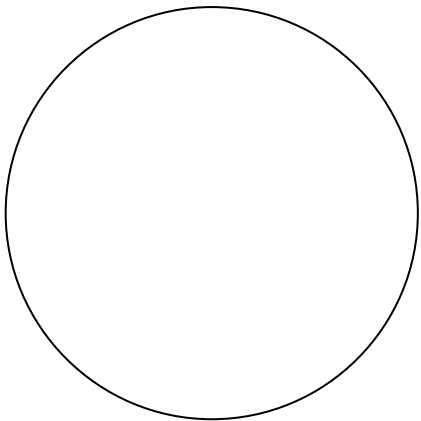
Slide 3 – Primary Oöcyte – Tetrads ON Spindle

4. What two types of chromatids are separating? _____ & _____.



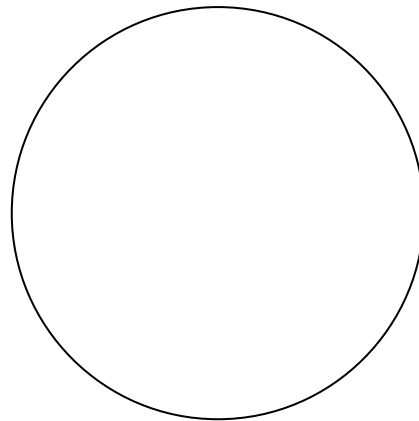
Slide 4 – Primary Oöcyte – First Polar Body Formed

5. At this point, how many chromosomes does the oöcyte have? _____



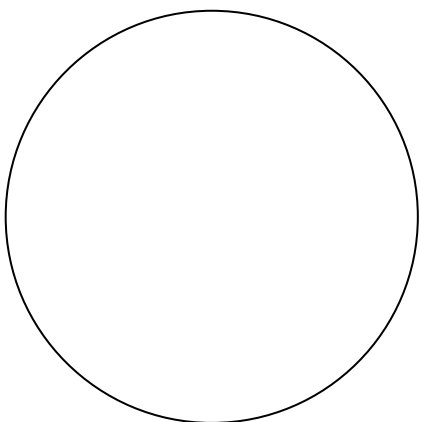
Slide 5 – Secondary Oöcyte – Chromosomes Formed

6. In this slide, how many chromatids does the cell contain? _____



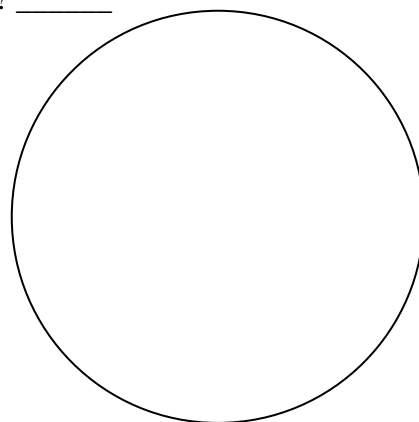
Slide 6 – Mature Egg

7. How many chromosomes are in each pronucleus? _____



Slide 7 – Pronucleus Stage

8. When this zygote divides by MITOSIS, how many chromosomes will go into each cell? _____



Slide 8 – Zygote ready for First Cleavage