_____ / _____ ____

name name per

# Microslide set 53 (Animal Mitosis)

( **Front cover of microslide packet.** )

All organisms begin life as a _____

The Ascaris (parasitic worm), has _____ chromosomes.

The photos in this lab have been rotated so that the _____ are on the sides.

What was the magnification of the microscopes used to take these pictures? _____

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**The question numbers refer to the slide they came from.**

1 Did this fertilized egg get more DNA from the female parent ( egg) or the male parent (sperm)?

_____

1 Why do some bits of DNA (chromatin) look so much bigger than other pieces in these pictures?

_____

2 How many chromosomes were donated by the sperm? _____

2 How many "U" shaped chromosomes came from the female parent? _____

3 The spindle fibers connect the _____ to the _____

3 What is the "P" pointing at? _____

4 Why do the chromosomes in #4 look different than the chromosomes in #3?

_____

5 Prior to being pulled apart, each chromosome is made of two DNA molecules.

After the two DNA molecules in a chromosome are pulled apart each DNA molecule becomes it own chromosome. So instantly 8 DNA molecules (4 chromosomes ) becomes 8 DNA molecules (8 chromosomes) Because of this, when an Ascaris cell splits it goes from one cell with 4 chromosomes into two cells with _____ chromosomes each.

6 What are the spindle fibers made of? _____

7 Why does a "cell plate" not form when the Ascaris cell goes through cytokinesis? _____

8 This cell has finished cytokinesis. Why are the chromosomes disappearing?

_____

8 It was probably the use of an _____ that made an accurate count of the chromosomes in a human cell possible.