Name:

Understanding Mitosis and Meiosis

PART A

Examine the table. Then answer the following questions.

Chromosome Numbers of Some Common Organisms

Organism	Body Cell	Gamete
Human	46	23
Garden Pea	14	7
Fruit Fly	8	4
Tomato	24	12
Dog	78	39
Chimpanzee	48	24
Leopard frog	26	13
Corn	20	10

1. What is the diploid number of chromosomes in corn? _____
2. What is the haploid number of chromosomes in corn? _____
3. Which organism has 46 chromosomes in each of its body cells? _____
4. Which cells in the human contain only 23 chromosomes? _____
5. What do you notice about the number of chromosomes in each body cell in comparison to the number of chromosomes in each gamete?

PART B

Identify each statement below as TRUE or FALSE. If your answer is false, EXPLAIN WHY it is considered to be false in the space that follows each question.

1. Daughter cells formed by meiosis are identical to each other and to the parent cell.

2. Two cell divisions occur in both mitosis and meiosis.

3. Daughter cells that are formed in mitosis are identical to each other.

4. A human body cell contains 2 sets of 23 chromosomes.

5. Chromosomes cross over during mitosis.