Name: _____ Row: _____

Date: _____ Period: _____

Number of Chromosomes Worksheet

1. What is the definition of haploid?

2. What is the definition of diploid?

The data table below shows the number of chromosomes for *somatic cells*. Questions 3-18.

Organism	# of Chromosomes	Organism	# of Chromosomes
Mosquito	6	Pea Plant	14
Housefly	12	Corn	20
Frog	26	Human	46
Orangutan	48	Dog	78

3. What is the number of chromosomes for diploid human cells? _____
4. What is the number of chromosomes for haploid pea plant cells? _____
5. What is the number of chromosomes for diploid orangutan cells? _____
6. What is the number of chromosomes for diploid dog cells? _____
7. What is the number of chromosomes for human gamete cells? _____
8. What is the number of chromosomes for diploid frog cells? _____
9. If a frog cell had 26 chromosomes, would that cell be diploid or haploid? _____
10. If a housefly cell had 6 chromosomes, would that cell be diploid or haploid? _____
11. If an orangutan cell had 24 chromosomes, would that cell be diploid or haploid? _____
12. If a pea plant cell had 14 chromosomes, would that cell be diploid or haploid? _____
13. If a mosquito cell had 3 chromosomes, would it be a gamete or somatic cell? _____
14. If a corn cell had 18 chromosomes, would it be a gamete or somatic cell? _____
15. If a housefly cell had 12 chromosomes, would it be a gamete or somatic cell? _____
16. If a pea plant cell had 14 chromosomes, would it be a gamete or somatic cell? _____
17. If a dog cell had 78 chromosomes, would it be a gamete or somatic cell? _____
18. If a human cell had 23 chromosomes, would it be a gamete or somatic cell? _____

19. Why is the chromosome number in each of the animal cells an even number? _____

_____

_____

_____

20. Write two types of gametes? _____ _____

21. What is the process called when the fusion of gametes create a zygote? _____

22. Is a zygote a diploid or a haploid cell? _____

23. Why is it important that gamete cells have only one set of chromosomes?

24. Draw a chromosome and label the sister chromatids and the centromere below.

25. Why does a chromosome has two sister chromatids?

26. Two sets of the chromosomes of the same type are called _____ chromosomes.

27. Diploid cells have one set of chromosomes that come from the mom's _____ and the other set comes from the dad's _____.

Circle haploid or diploid in of the questions below.

28. In the human body, nervous system cells are haploid or diploid.

29. In the human body, gamete cells are haploid or diploid.

30. In the human body, egg cells are haploid or diploid.

31. In the human body, liver cells are haploid or diploid.

32. In the human body, bone cells are haploid or diploid.

33. In the human body, skin cells are haploid or diploid.

34. In the human body, muscle cells are haploid or diploid.

35. In the human body, sperm cells are haploid or diploid.

36. In the human body, somatic cells are haploid or diploid.

37. In the human body, body cells are haploid or diploid.

38. In the human body, ova cells are haploid or diploid.