35. Which phase of the mitosis is the shortest? Answer: Anaphase

Fill in the following table

	Mitosis	Meiosis
36. Number of cell divisions	One	Two
37. Number of daughter cells	Two	Four
38. Genetic makeup of the daughter cells	Clones	Much different

Compare the events that occur in each of these phases

	Mitosis	Meiosis
39. Prophase	n/a	homologous chromosomes undergo
40. Metaphase	chromosomes line up individually	chromosomes line up homologous
41. Anaphase	sister chromatids	homologs separate

	Meiosis I	Meiosis II
42. Number of cells entering	there are 2 daughter cells	there are 4 daughter cells
43. Ploidy of cells entering	Haploid	four haploid daughter
44. Events happening in Prophase	homologous pairs	separate into chromosomes
45. Events happening in Anaphase	homologous chromosomes separate	movies to opposite ends of the cell

	YY x yy						
18	Axial X Terminal AA x aa	Aa	aa		Flower position	axial	terminal
19	Tall X Short TT X tt	Tt	tt		Plant height	tall	short

For each **phenotype**, give **all possible *genotypes***.

Curly hair is dominant to straight hair

	Phenotype	**Genotype**
20.	straight	50% chance
21.	curly	50% chance

Pointed heads are dominant to round heads.

	Phenotype	**Genotype**
22.	pointed	50% chance
23.	round	50% chance

Oompahs can have red (R), blue, or purple hair. The allele that controls this trait is **INCOMPLETELY DOMINANT**, where purple hair is caused by the heterozygous condition (Rr). Show a "key" for the genotypes and phenotypes of hair color. I completed the one for Purple below.

	Genotype	**Phenotype**
24.	**Red**	(RR) RED