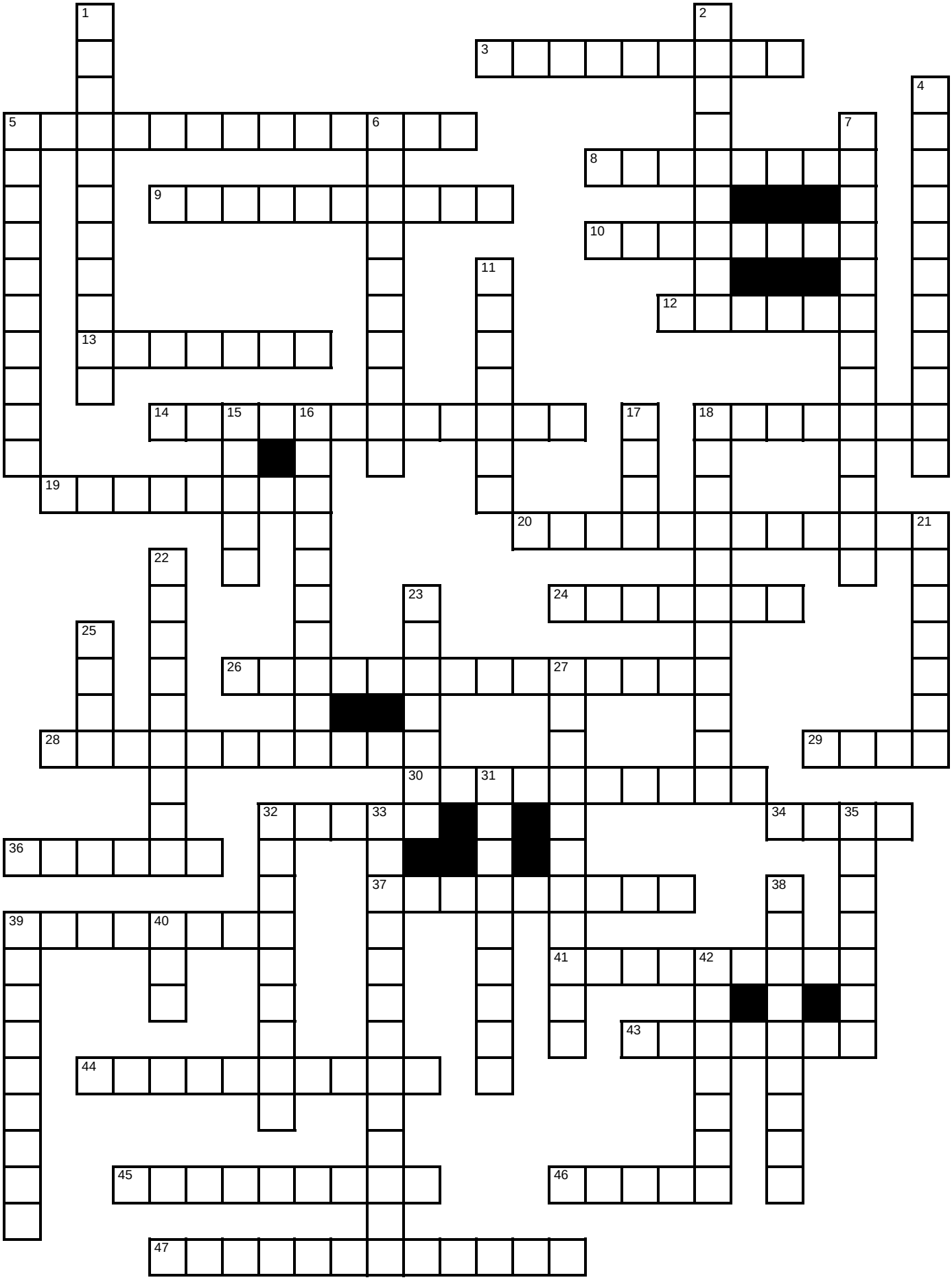
ch 10-11 Genetics

_____



Across

3. Meiosis produces new cells that are genetically -?- from each other and the cell they came from.

5. If the recombination frequency is low (don't recombine much) then the genes must be -?- on the chromosome.

8. During which phase of mitosis do the sister chromatids get pulled apart?

9. The thing in the middle of a chromosome that holds the chromatids together is called a -?-

10. If the recombination frequency is high then the genes must be -?- on the chromosome.

12. Who was the "father" of genetics?

13. Where do human stems cells come from? TECHNOLOGY AND SOCIETY

14. Meiosis occurs only in the -?- organs of a birds body.

18. -?- inhibition cause normal cells to stop growing when they become crowded by neighboring cells.

19. What is the first step of mitosis?

20. A genotype with two different alleles (such as in most hybrids) is said to be -?-

24. If the male P-generation and the female P-generations were different, then the offspring would be -?-

26. If we ANALYZE DATA we find that the cells of the -?- take about 6 days to complete a life cycle.

28. Meiosis in females results in one egg and 3 -?-

29. The modern definition of a -?-, is a section of DNA that controls a particular trait.

30. According to figure 10-4 the cell cycle can be divided up into two main segments: cell division and -?-

32. Humans have 23 -?- of chromosomes in each cell.

34. What color would the feathers be of a heterozygous bird be if they carry a black gene that has incomplete dominance over the white gene it carries?

36. Knowing how to control the cell cycle could lead to a cure to cancer and treatments to repair damaged -?-

37. Each half of a chromosome is called a -?-

39. Genetic scientists study -?-, and try to understand how traits get passed on to offspring.

41. Mitosis produces new cells that are genetically -?- to each other and the cell they came from.

43. What process creates new skin cells to replace old ones?

44. If a bear looks gray because it has white hairs and black hairs then the black and white genes must be -?-

45. DNA that is not bundled up is called -?-

46. According to figure 10-1 all snails have the same size -?-

47. The process of -?- allow for novel combinations of genes to be created from a limited pool of chromosomes.

Down

1. True independent assortment rarely happens because the genes for traits are bundle together on -?-

2. During which stage of mitosis do the chromosomes line up along the middle of the cell?

4. Punnett squares are used to predict the -?- of genotypes and phenotypes in the offspring of a cross.

5. DNA that is copied and bundled is called a -?-

6. A genotype with two identical alleles is said to be -?-

7. During -?- the DNA of two cells is joined into one.

11. What are the newly discovered chemicals called that have a controlling influence over the cell cycle?

15. In plants cells cytokinesis is performed by the construction of a cell -?- across the middle of the cell.

16. If big toes is dominant, and little toes is recessive, what is the probability of getting a heterozygous kid when a homozygous big toed person is crossed with a homozygous little toed person?

17. What animals did Mendel do genetic experiments on?

18. The final part of the cell cycle when the cell becomes two cells is called -?-

21. One reason really big cells cannot exist is that as the cell gets the bigger the -?- to volume ratio goes down.

22. Mendel believed the F1 generations of hybrids were all the same was due to the -?- of certain traits.

23. What process turns one normal diploid body cell into 4 haploid sex cells.

25. If big toes is dominant, and little toes is recessive, what is the probability of getting a little toed kid when a homozygous big toed person is crossed with a homozygous little toed person?

27. During -?- a "coin" is flipped to see which allele a person is carrying will be give to the gamete they are producing.

31. What is the last step of mitosis?

32. I.Q. is determined by the interaction of many genes working together, in other words I.Q. is a -?- trait.

33. Crossing over is also know as -?-, the frequency of which can be measured as an indication of how close genes are on a chromosome.

35. The various forms of a gene are called -?-

38. -?- genes will usually not affect the phenotype unless they are present in a double dose in the individual.

39. According to figure 11-12, what color coat is recessive to all other colors accept albino?

40. One reason really big cells cannot exist is that the -?- can only control so much.

42. During meiosis -?- form as 2 homologous chromosomes (4 chromatids) line up together in the middle of the cell.