

1. B
2. D
3. C
4. C
5. C
6. C
7.  $\frac{1}{2}$  Bb  $\frac{1}{2}$  bb
8. B
9. A
10. Only A and B type blood
11. Males because they have only one X chromosome so they have to express all alleles on their given chromosome whether it's recessive or not while females can pass of a recessive allele as a carrier
12. Inheritance of the Y chromosome
13. B
14. When a pair of homologous chromosomes fail to separate normally during cell division causing an uneven distribution of chromosomes.
15. D
16. B
17. Polygenic is 2 or more genes affecting a trait, Pleiotropy is one gene that influences many traits
18. D
19. D
20.  $\frac{1}{16}$  YYRR,  $\frac{1}{16}$  yyrr,  $\frac{1}{16}$  yyRR,  $\frac{1}{16}$  YYrr,  $\frac{1}{8}$  YyRR,  $\frac{1}{8}$  YYRr,  $\frac{1}{8}$  yyRr,  $\frac{1}{8}$  Yyrr,  $\frac{1}{4}$  YyRr
21. ie. red green color blindness, hemophilia, etc
22. D
23. Phenotype is the physical expression of traits, genotype is the genes
24. B
25. G1 phase aka growth phase, cell synthesizes enzymes and nutrients needed for mitosis. S phase Chromosomes are doubled so that each chromosome consists of 2 sister chromatids. G2 phase cell synthesizes proteins for cell division.

26. Metaphase plate

27.

- a. Prophase
- b. Metaphase
- c. Anaphase
- d. Telophase
- e. Cytokines

28. B

29. C

30.

- a. Both are ways to produce new cells from an original cell
- b. Both have multiple stages
- c. Necessary to condense and multiply chromosomes for both
- d. Meiosis has double the amount of stages
- e. Mitosis produces identical daughter cells
- f. Meiosis includes crossing over
- g. Meiosis is for gametes

31. Protein is a folded polypeptide

32. B

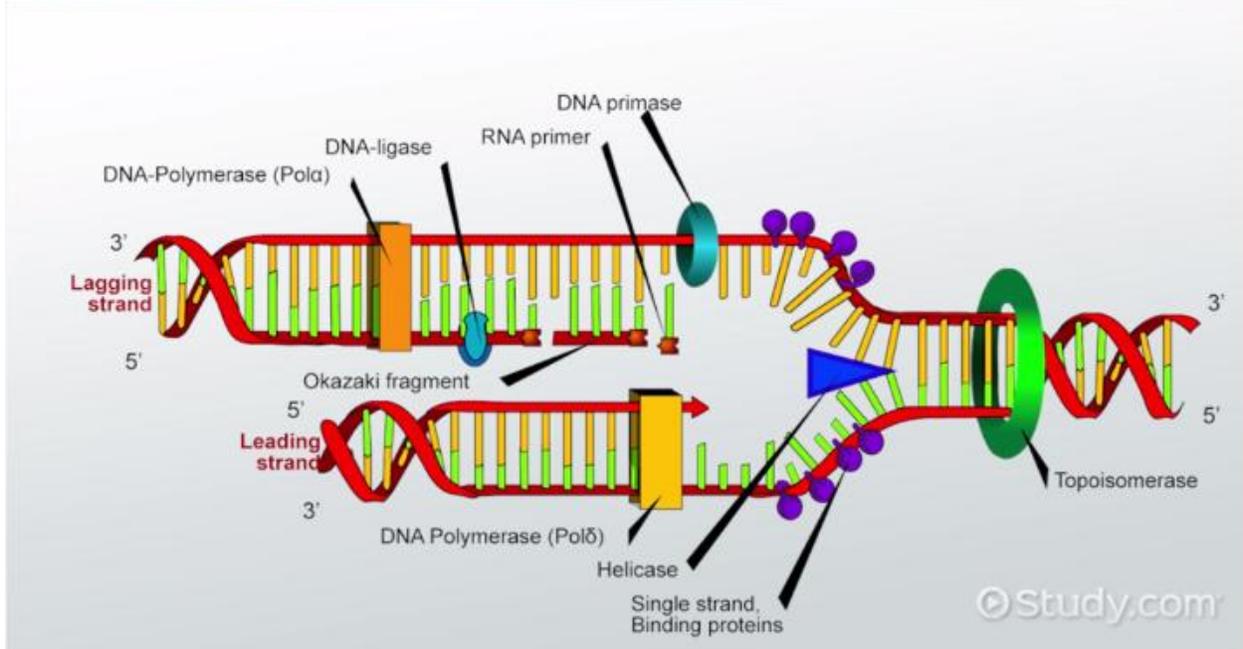
33. Exons are the coding template while introns are just the stuff in between

34. B Methionine

35. DNA is double stranded, RNA has uracil, RNA has ribose instead of deoxyribose

36. -

## FUNCTION OF THE REPLICATION FORK



37. B
38. Mmm
39. A zygote is a male gamete and female gamete that have fused together to create a child. Basically a zygote is a fetus and a gamete is half a fetus
40. To map out your chromosomes and detect aneuploidy
41. a diagram that shows the occurrence and appearance of phenotypes of a particular gene or organism and its ancestors from one generation to the next
42. Male
43. Trisomy 13 Patau's syndrome
44. Recessive
45. X'X', X'X, X'Y
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