

Module 09 Quiz: Inheritance

Name: _____ Date: _____

Part A: Multiple Choice (7 points)

Choose the best answer for each question. (1 point each)

1. An organism with two different alleles for a trait is:
 2. A) Homozygous
 3. B) Heterozygous
 4. C) Dominant
 5. D) Recessive

6. The physical appearance of an organism is its:
 7. A) Genotype
 8. B) Phenotype
 9. C) Allele

10. D) Chromosome

11. In a cross between two heterozygous individuals ($Aa \times Aa$), what fraction of offspring will show the recessive phenotype?
 12. A) $1/4$
 13. B) $1/2$
 14. C) $3/4$

15. D) All

16. A cross between a red flower (RR) and white flower (WW) produces all pink offspring.
This is an example of:

17. A) Complete dominance
 18. B) Incomplete dominance
 19. C) Codominance

 20. D) Polygenic inheritance

 21. A trait that appears more commonly in males is likely:

 22. A) Autosomal dominant
 23. B) Autosomal recessive
 24. C) X-linked recessive

 25. D) Y-linked

 26. Blood type AB demonstrates:

 27. A) Complete dominance
 28. B) Incomplete dominance
 29. C) Codominance

 30. D) Simple dominance

 31. In a pedigree, a filled-in circle represents:

 32. A) An affected male
 33. B) An affected female
 34. C) A carrier
 35. D) An unaffected individual
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Part B: Free Response (3 points)

Answer each question in complete sentences.

1. (1 point) If a father is homozygous dominant (BB) and a mother is homozygous recessive (bb), predict the genotype and phenotype of their offspring.
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1. (1 point) Explain why color blindness is more common in males than females.

1. (1 point) Distinguish between genotype and phenotype using a specific example.
