Inheritance and variation ,reproduction in flowering plants

1. Hemophilia in humans is due to an **X**-chromosome mutation. What will be the results of mating between a normal female and a hemophilac male?

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| **A.** | [half of daughters are normal and half of sons are hemophilic.](http://www.biology.arizona.edu/mendelian_genetics/problem_sets/sex_linked_inheritance/06t.html) |
| **B.** | [**all sons are normal and all daughters are carriers.**](http://www.biology.arizona.edu/mendelian_genetics/problem_sets/sex_linked_inheritance/06c.html) |
| **C.** | [half of sons are normal and half are hemophilic; all daughters are carriers.](http://www.biology.arizona.edu/mendelian_genetics/problem_sets/sex_linked_inheritance/06t.html) |
| **D.** | [all daughters are normal and all sons are carriers.](http://www.biology.arizona.edu/mendelian_genetics/problem_sets/sex_linked_inheritance/06t.html) |

1. A human female "carrier" who is heterozygous for the recessive, sex-linked trait causing colour blindness , marries a normal male. What proportion of their male progeny will have colour blindness ?
2. **A.**[100%](http://www.biology.arizona.edu/mendelian_genetics/problem_sets/sex_linked_inheritance/07t.html)
3. **B.**[**75%**](http://www.biology.arizona.edu/mendelian_genetics/problem_sets/sex_linked_inheritance/07t.html)
4. **C.**[50%](http://www.biology.arizona.edu/mendelian_genetics/problem_sets/sex_linked_inheritance/07c.html)
5. **D.**[25%](http://www.biology.arizona.edu/mendelian_genetics/problem_sets/sex_linked_inheritance/07t.html)

**3.** As distance of gene on chromosome is more these genes shows……

1. Linkage
2. Crossing over
3. Recombination
4. Both a and b

4. linkage in plants was discovered by……

1. T. H. Morgan
2. **Bateson and Punnett**
3. Sutton and boveri
4. None of these

5. X linked genes are located on ………region of ……chromosome.

1. Homologous , Y
2. Non-homologous ,Y
3. **Non-homologous, X**
4. Homologous ,X

6. Hypertrichosis is an …….trait.

1. Autosomal
2. X linked
3. **Y linked**
4. Xy linked
5. How many linkage groups are present in *Drosophila* *melanogaster.*
6. 20
7. 10
8. **4**
9. 7
10. X linked recessive traits are most comman in……
11. **Male**
12. Female
13. Both a and b
14. Cant predict
15. Y linked traits are inherited fron
16. Mother to son
17. Mother to daughter
18. **Father to son**
19. Father to daughter
20. At end of chromosome ……. is present.
21. **Telomere**
22. Primary constriction
23. Centromere
24. All above
25. Y chromosome is …….
26. Metacentric
27. Telocentric
28. **Acrocentric**
29. Submetacentric
30. Which of these is not