

- b. A brown eyed man marries a blue eyed woman. The first child is blue eyed. What is the man's genotype?

		Woman	
		b	b
Man	B		
	b		

Let:

The man must be heterozygous dominant (Bb) to be able to produce blue eyed children. He is a carrier.

7. Define and state the difference between complete dominance, co-dominance and incomplete dominance? Use examples of each.

complete dominance = If the dominant allele is present, it will be expressed, even if heterozygous AA or Aa = red flower

8. Describe the difference between the male and female karyotype (types of chromosomes).

9. A father is who is *homozygous dimpled*, and a mother who is *heterozygous dimpled* have children.

- Show the two alleles carried by the father. (Use "D" for dimpled and "d" for smooth)
- Show the two alleles carried by the mother. (Use "D" for dimpled and "d" for smooth)
- Fill in the following Punnett Square showing the cross and show the combinations of genes possible in the children.

		Possible gametes from Female Parent	
		D	d
Possible gametes from Male	D	DD	Dd
	d	Dd	dd

- According to chance, what fraction of their children will have dimples? 100%
- What fraction of the children should be *homozygous smooth*? 0%
- What fraction of the children should be *heterozygous dimpled*? 50%
- What fraction of the children should be *homozygous dimpled*? 50%