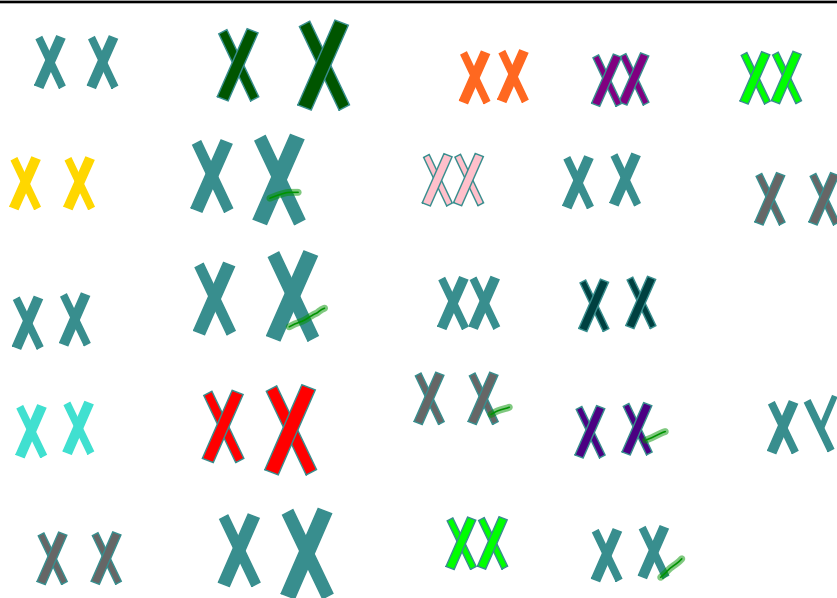A horse with red hair mates with a horse with white hair. What should the offspring be?

Polygenic traits- when several genes _Control_ one trait.

Examples: hair color, eye _Color_, weight height, and _Skin_ color.

The genes can be on the same chromosomes or different chromosomes.

Intermediate traits.
For example when a red snapdragon and crossed with a white snapdragon, the offsrping are pink.

Snapdragons

Codominance-
both forms are
expressed at the
same time.

Multiple
alleles-
traits with
three or more
alleles.

I^A I^B i

| I^B i |
| $I^A I^A$ |

| i i | | i i |

| $I^B I^B$ |
| $I^B I^A$ |

| I^A i |

Phenotype can be affected by

<u>environment</u>

Arctic Fox

Steps to a pedigree.

1. Number the generations (Roman numerals)
2. Number the people
3. O = female ☐ = male
4. All homozygous recessive get 2 little letters. <u>Shaded in shapes.</u>
5. All others get 1 dominant allele.
6. Figure out the other letter

B= gene for brown eyes   b- gene for blue eyes

_____1. What is the sex of person III-3?

_____2. How many generations are shown on this pedigree?

_____3. How is person II-1 related to III-2?

_____4. How many men have blue eyes?

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_____5. How many marriages are shown on the pedigree?

_____6. How many couples have only one child?

_____7. What is the genotype of person I-2?

_____8. What is the genotype of person II-8?

_____9. What is the genotype of person III-4?

_____10. What is the phenotype of person II-3?

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