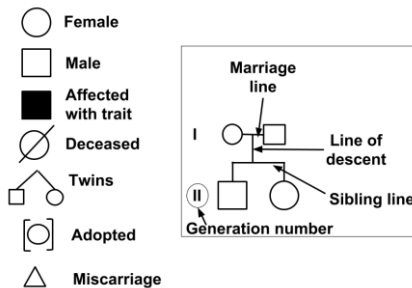## Determining Genotype

- How do we know the genotype of a dominant phenotype?
  - AA or Aa
- Cross dominant phenotype with recessive and look at offspring
  - A? x aa
  - If any offspring are recessive, then Aa.

Pedigrees

- a chart-like "family tree" showing the inheritance pattern of a trait.
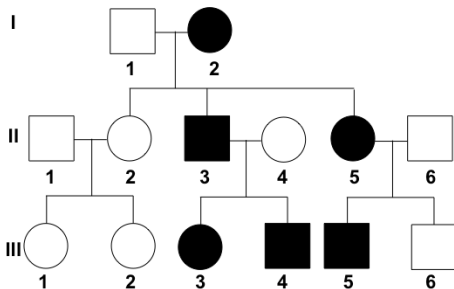- Used to figure out pattern of inheritance.

Pedigree Symbols

Interpreting Pedigrees
Dominant or Recessive

- Dominant traits do not skip generations – a parent must have it for a child to have it
- If both parents have it and child does not – dominant

- If a child has the condition and parents do not – recessive
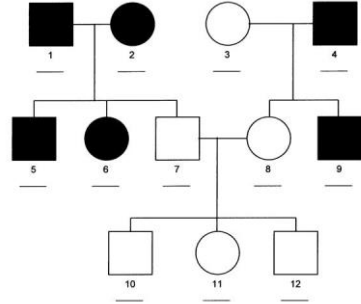
Dominant or Recessive?

Interpreting Pedigrees
Autosomal or Sex-linked?

- Who has it?
  - Equal males and females = (usually) autosomal
  - Males twice as likely as females to have sex-linked
- How did they get it?
  - For Sex-Linked:
    - Males inherit from mom (Dad passes Y chromosome)
    - Females inherit from dad
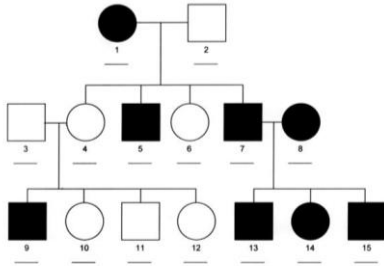- (no dominant sex-linked)
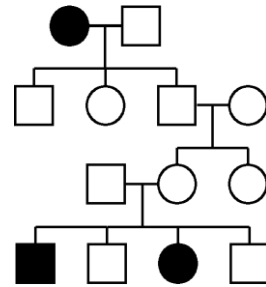
Autosomal or Sex-Linked?
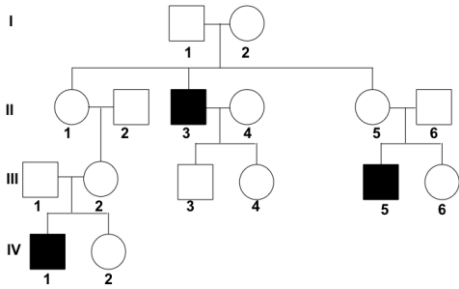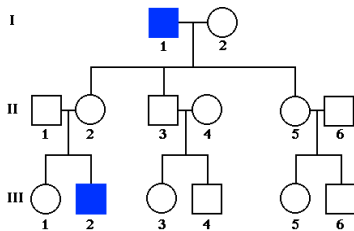

What inheritance pattern?

What inheritance pattern?

What inheritance pattern?

What inheritance pattern?

Drawing Pedigrees

- Mary is married to Greg and they have 2 sons (Scott and Tyler) and 1 daughter (Karen).
- Their son, Scott, married April and had Sutton (a boy) and Kendall (a girl).
- Their daughter, Karen, married Harry and had Eliq (a son) and Tariq (a son).