Name _____

Period _____ Date _____

Sex-Linked Traits Notes

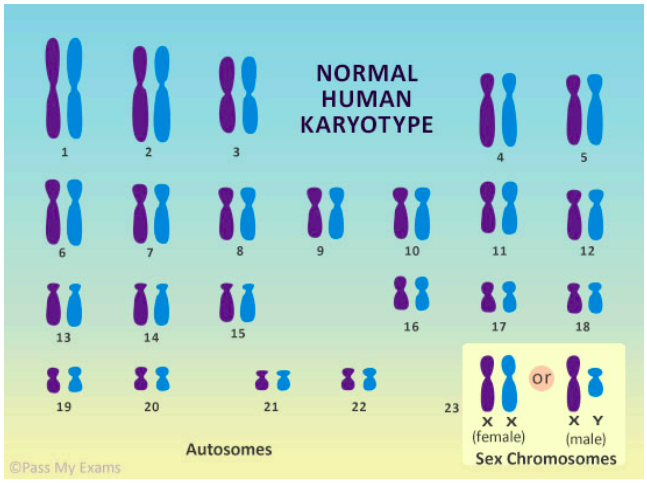
Sex Chromosomes

Humans have _____ pairs of _____

- _____ pair of _____ are related to the _____ of the _____
    - These _____ are called _____

Autosomes

The other _____ pairs of _____ are called _____



Determining the Sex of an Individual

- If an individual is _____, _____ has _____ _____ for _____ _____ pair
    - _____ = _____
- If an individual is _____, _____ has _____ _____ and _____ _____ _____ for _____ _____ pair
    - _____ = _____

In _____, the _____ of an individual is determined by the _____ or _____ of the _____

- The _____ determines the _____ of the _____

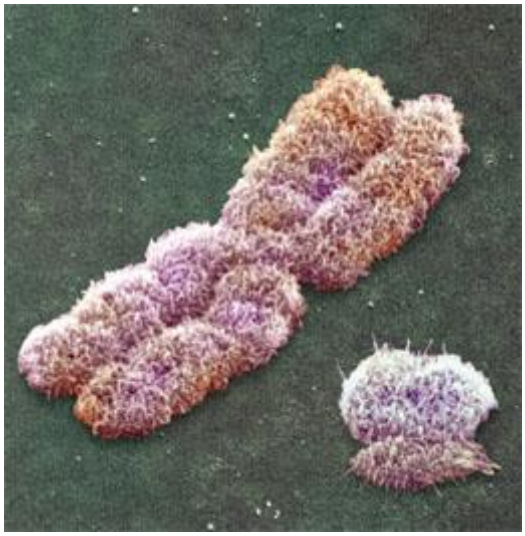
Why does the sperm determine the sex of the child?

The _____ will receive one _____ from _____ and one _____ from _____

- _____ can only give _____
- _____ can give an _____ or a _____ _____
- If the _____ receives _____ _____ _____ (_____ from _____ and _____ from _____), the _____ will be _____
- If the _____ receives _____ _____ _____ from _____ and _____ _____ _____ from _____, the _____ will be _____

Sex-Linked Traits

Sex-linked traits are…

X Chromosome: • Contains over _____ genes • Most _____ on the X chromosome do NOT have corresponding _____ on the _____ chromosome	
Y Chromosome: • Contains only a _____ genes • Some _____ are unique only to the _____ _____	

Sex-Linked Trait Inheritance

Y-linked genes are…

- Y linked disorders are _____
- Example: _____ → a _____ inherited disease of the _____ in which the _____ of the _____ produce defective _____

X-linked genes are…

- X linked disorders are _____
- Example: _____ → a _____ x-linked disorder in which the the ability of the _____ to _____ is severely _____

The _____ of sex-linked traits depends on the _____ of the _____ carrying the trait, as well as the _____ of the _____

- Because _____ only carry _____ _____ _____, they are at a much _____ risk for _____ sex-linked _____
    - If the _____ _____ chromosome contains the _____ for the _____, the _____ child will most likely have that _____

Women have _____

- If a _____ sex-linked disorder is present on _____ _____ _____, the _____ _____ _____ will often have the _____ trait that will _____ the trait of the _____ allele
- Women are often _____ (_____) of x-linked _____, even though they do not have the _____ themselves

More Examples of X-Linked Disorders and Traits

1. _____
2. _____
3. _____
4. _____

Punnett Squares and Sex-Linked Traits

1.

2.

3.

Labeling Alleles for Sex-Linked Traits

If the parent is _____, the symbols for _____ alleles are _____

_____

- _____ and _____ sex-linked traits are represented with _____

  _____ and _____ letters

- Example: A woman that is a carrier of hemophilia will be represented

  _____

  - _____ = _____
  - _____ = _____

If the parent is _____, the symbols for _____ alleles are a _____

_____

- _____ and _____ sex-linked traits are represented with _____

  _____ and _____ letter _____

- Example: A man that is NOT a carrier of hemophilia will be represented:

  _____

  - _____ = _____
  - _____ = _____
  - The _____ _____ does not _____ the _____ so it does not receive a _____

Punnett Squares and Sex-Linked Traits

Male patterned baldness is a recessive, X-linked trait.
If a female that is a carrier for the baldness trait is crossed with a non-bald (normal) male, what are the chances their offspring might be bald?

What letters will represent “normal” and bald?

- _____ = normal
- _____ = bald
- What will mom’s genotype look like?

  _____
- What will dad’s genotype look like?

  _____
- What percentage of the offspring might be bald?