

Name \_\_\_\_\_

### Human Genetics WS

There are \_\_\_\_\_ pairs of chromosomes in human body cells. Of these, \_\_\_\_\_ pairs are autosomes and one pair is the \_\_\_\_\_. (p.214)

What are the sex chromosomes of a normal female?

What are the sex chromosomes of a normal male?

Which parent determines the sex of the offspring?

What are the chances of a couple having a baby boy? \_\_\_\_\_ a baby girl? \_\_\_\_\_

In a mutation called \_\_\_\_\_, homologous chromosomes do not separate. (p.247)

Non-disjunction creates gametes with missing or extra \_\_\_\_\_.

Give an example of a human condition caused by non-disjunction.

What is a karyotype? (p.270)

How is a karyotype created?

Chromosomal analysis (karyotypes) can verify the \_\_\_\_\_ of the fetus.

A chromosomal analysis can also identify \_\_\_\_\_. (p.271)

A karyotype containing two X chromosomes and one Y chromosome indicates a \_\_\_\_\_ with \_\_\_\_\_.

What are the sex chromosomes of a female with Turner syndrome?

A technique used to identify individuals according to patterns in their DNA is \_\_\_\_\_  
\_\_\_\_\_. (p.272)

Except for \_\_\_\_\_, everyone's DNA is unique.

What is the purpose of restriction enzymes in DNA fingerprinting?

What is the name of the apparatus that separates out DNA fragments by size?

What are some uses of DNA fingerprinting? (p.273)

| blood stain | Bob | Sue | John | Lisa |
|-------------|-----|-----|------|------|
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Compare the DNA from the blood stain on the far left to the DNA fingerprints of Bob, Sue, John and Lisa.

Who does the blood stain belong to?

How can you tell?