

# Chromosome Analysis

This activity helps students learn about human chromosomes. Students will have to match the sizes and banding of the chromosomes to determine the patient's karyotype.

Note:

- Sheets A and B are for practice. These two karyotypes have the normal complement of 46 chromosomes.
- Sheets C through F are patient chromosomes that may or may not have 46 chromosomes.

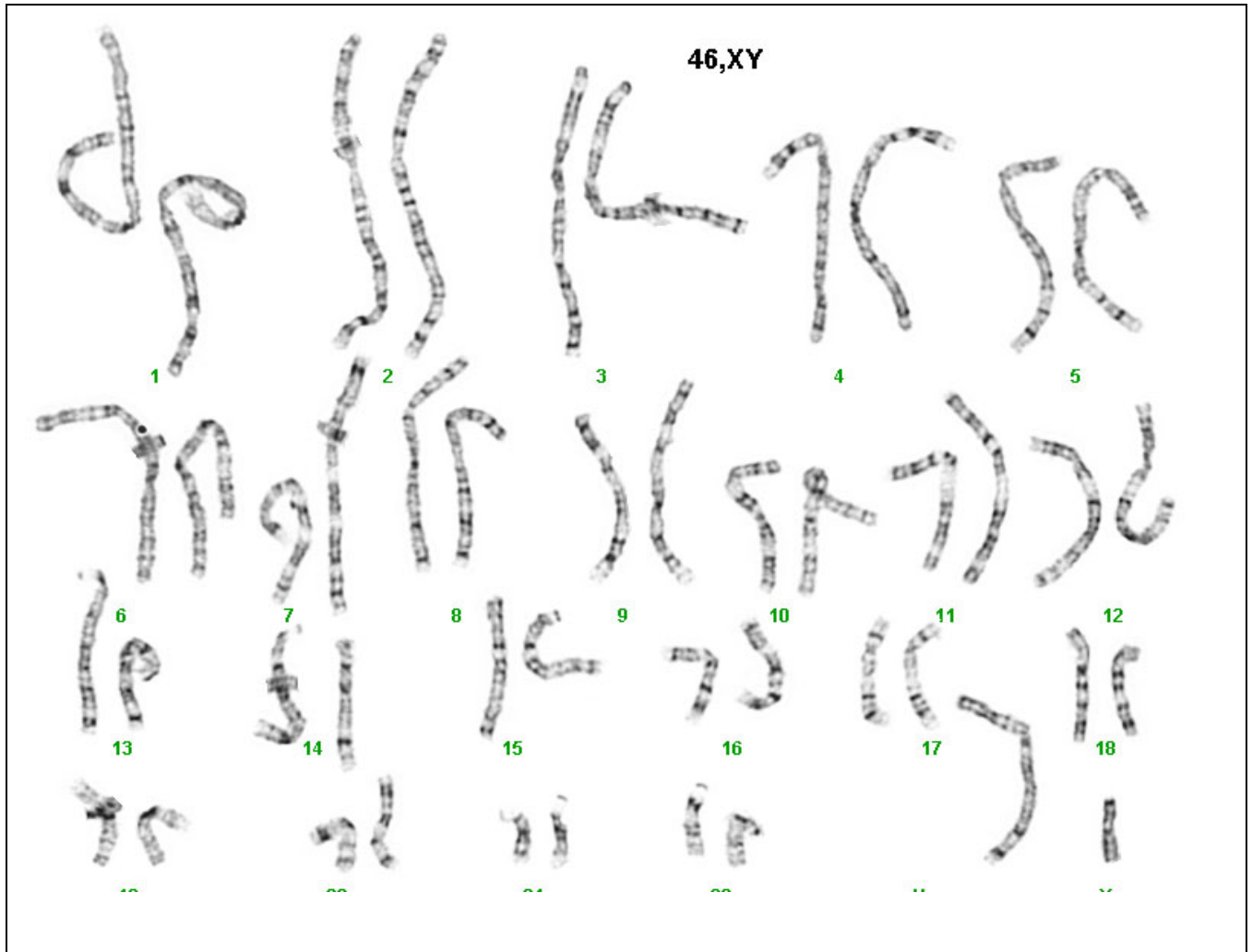
After matching the chromosomes, students are given cytogenetic reports that should confirm their results. As a second part to the activity, students can create an information pamphlet for patients, learning more about various chromosome abnormalities.

We have provided answer keys for the teacher. As the students work, it is easier to help if you have the full chromosome complement before you.

Materials needed:

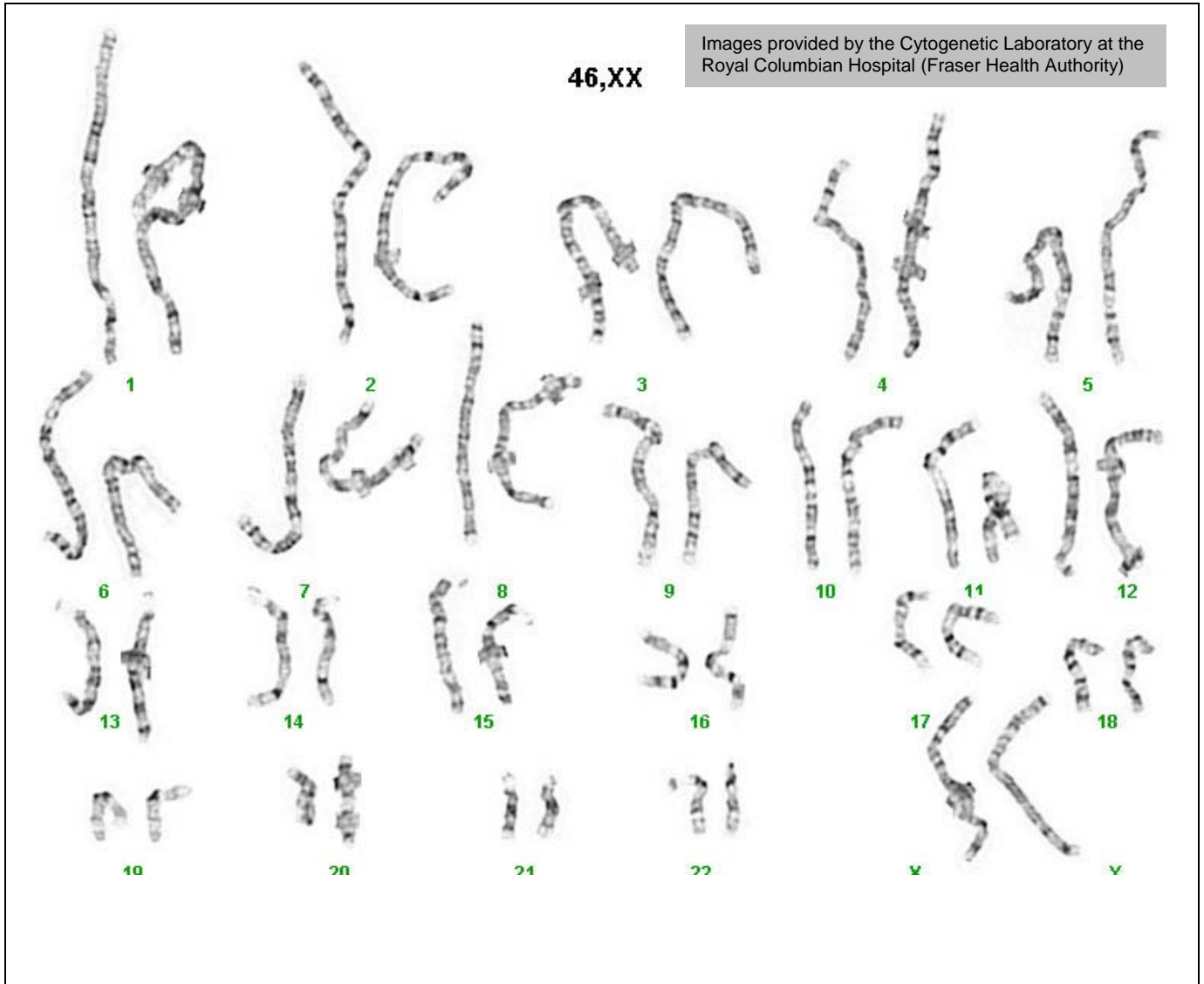
1. Worksheets for each workstation
  - a. A or B for practice
  - b. then one of C to FNote: we have found that this activity works best in pairs
2. Scissors - one pair per workstation
3. Glue
4. Resource materials - textbooks or internet - for future research on chromosome abnormalities

# A1- Answer Key



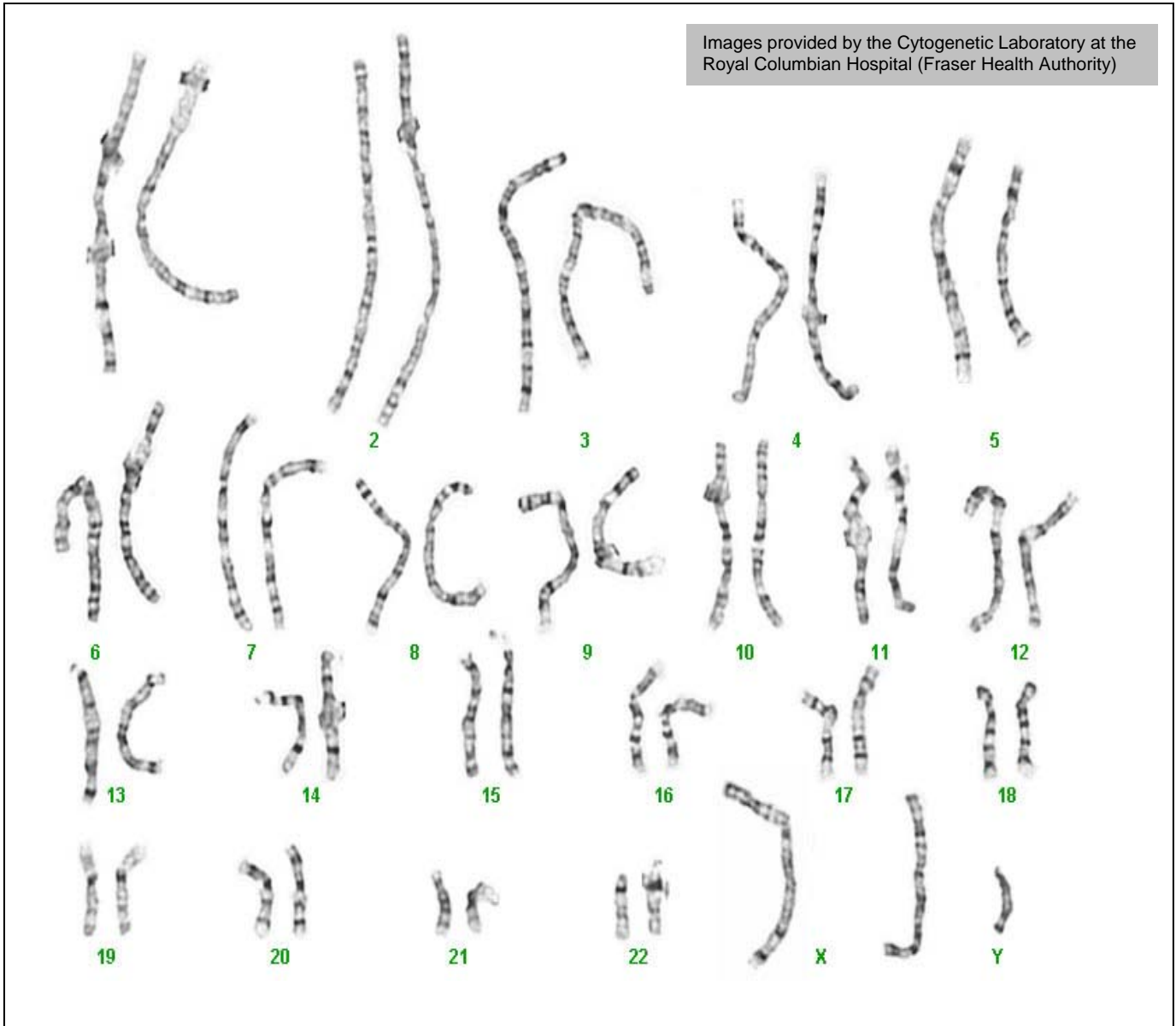
Images provided by the Cytogenetic Laboratory at the Royal Columbian Hospital (Fraser Health Authority)

# B1- Answer Key



# C1- Answer Key

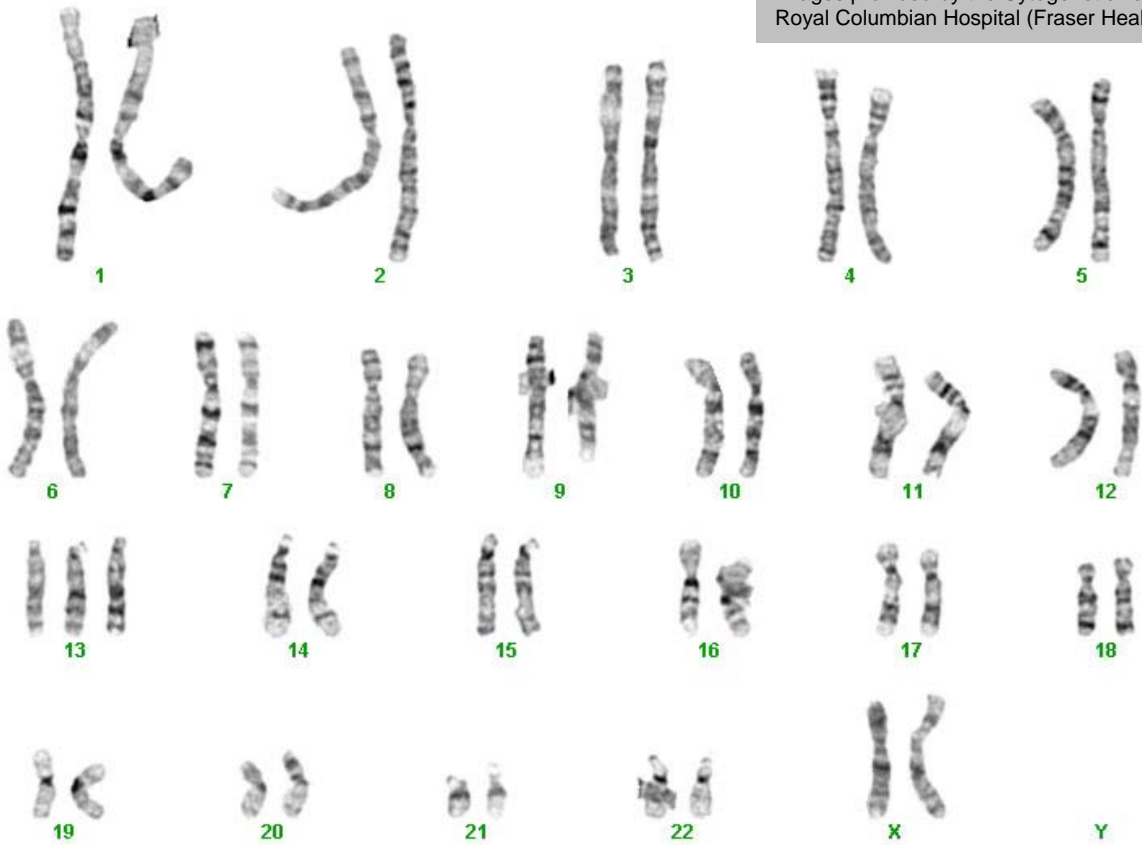
Images provided by the Cytogenetic Laboratory at the Royal Columbian Hospital (Fraser Health Authority)



**47, XXY**

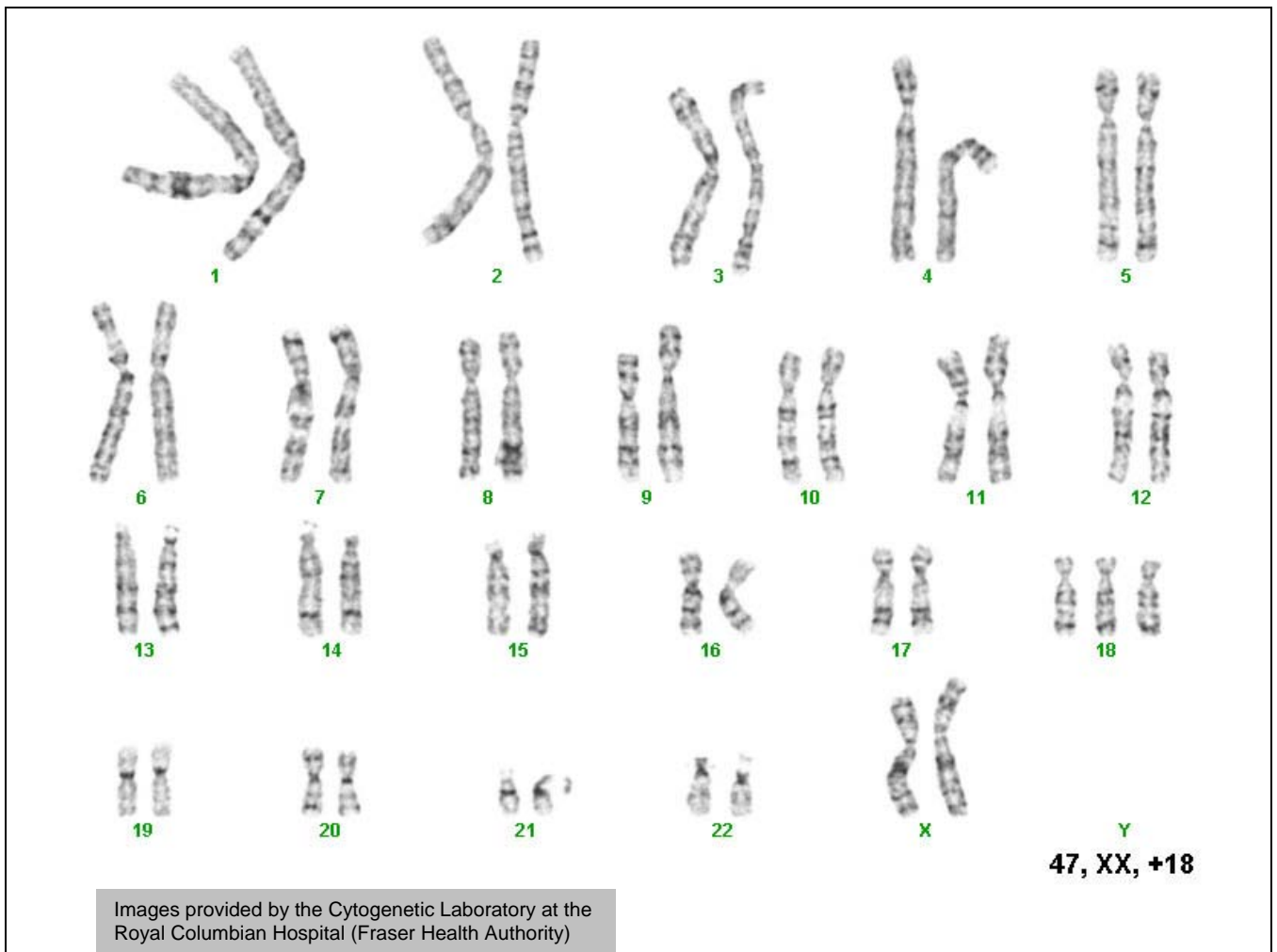
# D1- Answer Key

Images provided by the Cytogenetic Laboratory at the Royal Columbian Hospital (Fraser Health Authority)

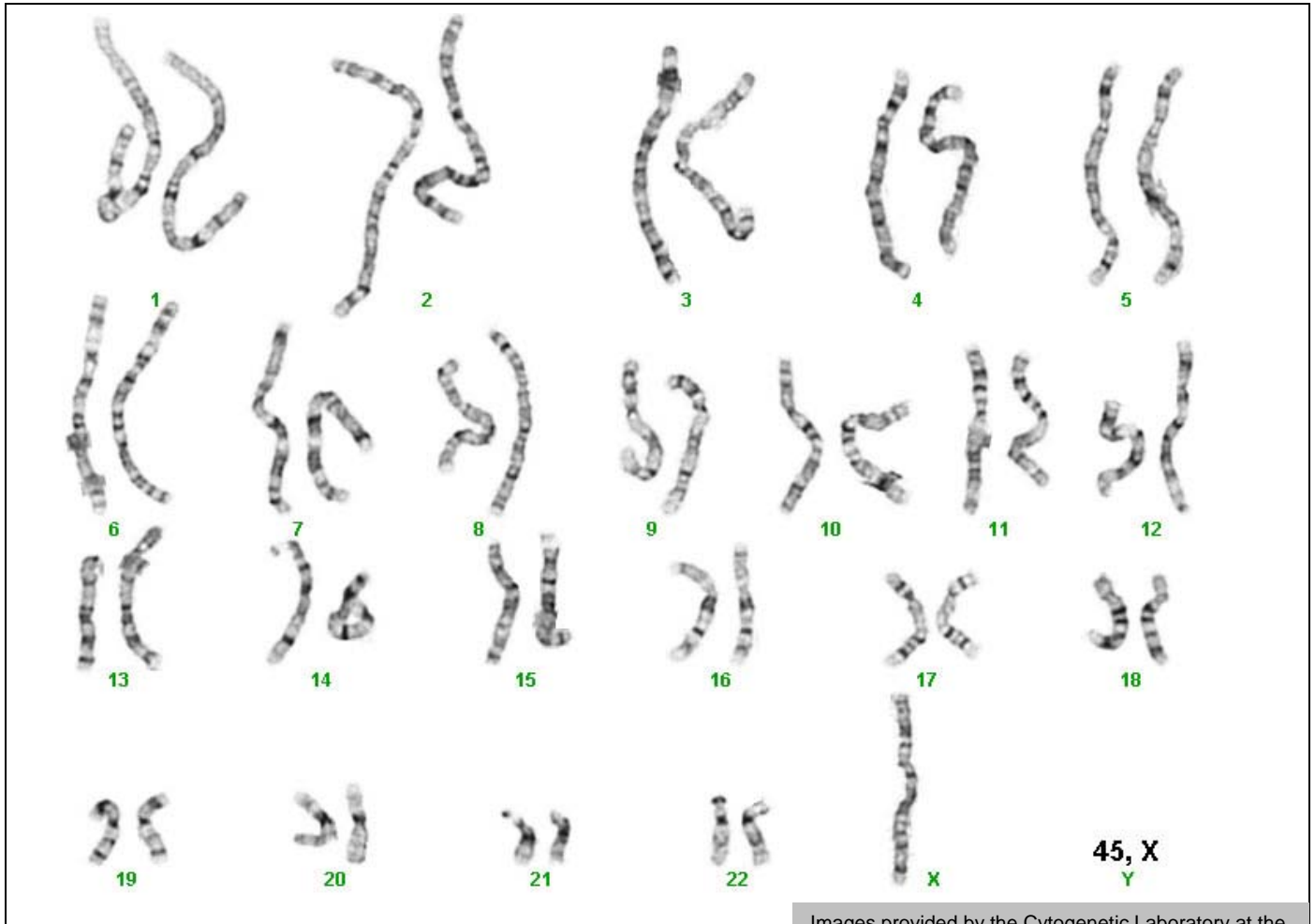


47, XX, +13

# E1- Answer Key



# F1- Answer Key



Images provided by the Cytogenetic Laboratory at the Royal Columbian Hospital (Fraser Health Authority)