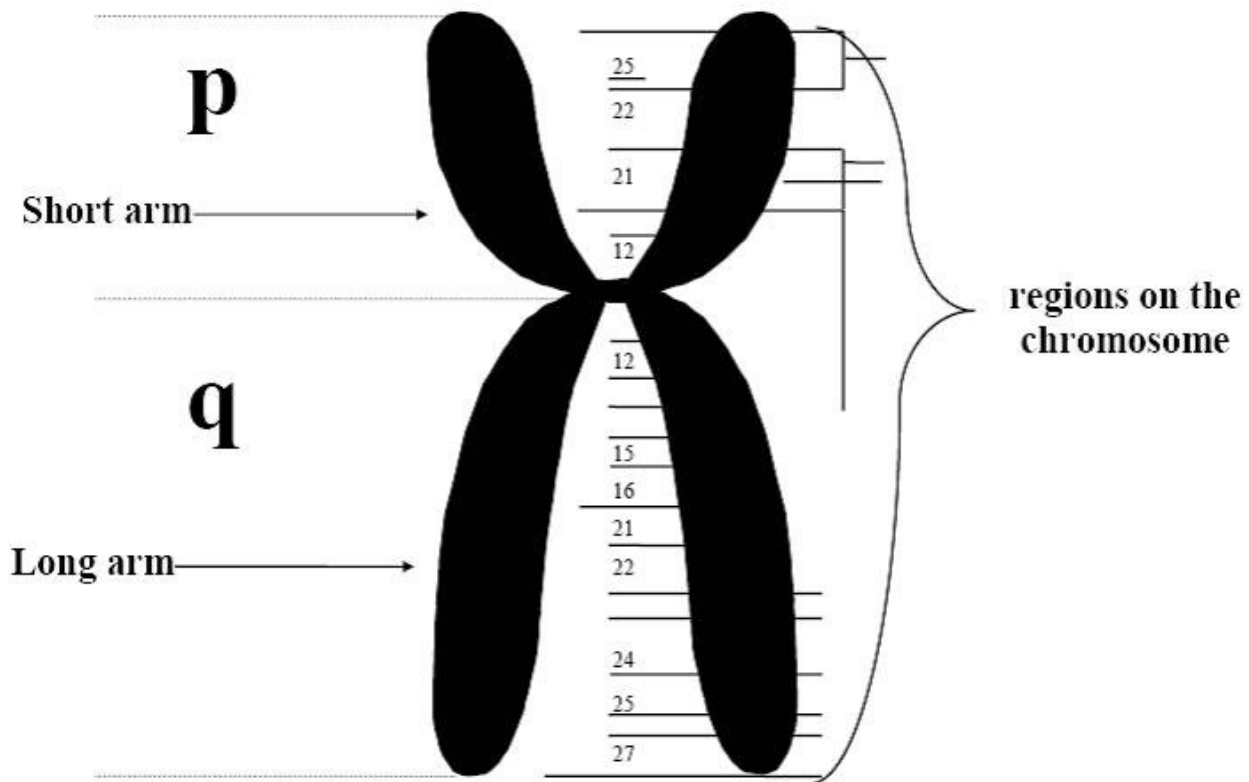
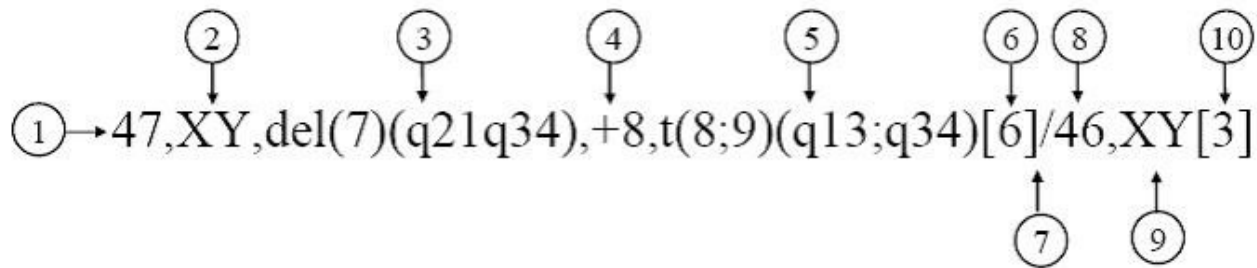


Appendix C: Cytogenetic Assessments

Abbreviation/ Term	Definition
p	short arm of a chromosome
q	long arm of a chromosome
p+	addition of chromosomal material to the short arm of a chromosome
q+	addition of chromosomal material to the long arm of a chromosome
p-	loss of chromosomal material to the short arm of a chromosome
q-	loss of chromosomal material to the long arm of a chromosome
t	translocation of chromosomes; e.g., t(1;19)
+	addition of an entire chromosome (trisomy); e.g., +21
-	deletion of an entire chromosome (monosomy); e.g., -7
Ph+	Philadelphia chromosome, arises from translocation t(9;22)
del	deletion of chromosomal material; e.g., del(7)(q21q34)
inv	inversion of chromosomal material; e.g., inv(1)(p36q21)
der	Derivative
metaphase	cell phase at which chromosomes may be examined
karyotype	designation of results of chromosome analysis; karyotype may be defined at the cell level, cell line or clone level, or at the level of the individual



How To Interpret Cytogenetic Nomenclature



Commas separate statements about the karyotype.

Number	Definition
1	Number of chromosomes detected.
2	Sex chromosomes.
3	Deletion of chromosomal material on the long arm of chromosome 7 between regions 21 and 34.

4	Trisomy 8; extra chromosome 8.
5	Translocation of chromosomal material on the long arm of chromosome 8 and the long arm of chromosome 9.
6	Number of cells (metaphases) examined with these abnormalities.
7	Separates information about differing karyotypes.
8	Number of chromosomes detected.
9	Sex chromosomes.
10	Number of cells examined with this normal karyotype.

The website Human Gene Nomenclature Committee or Genenames.org may be helpful in deciphering common cytogenetic abnormalities.

Manual Updates:

Sections of the Forms Instruction Manual are frequently updated. The most recent updates to the manual can be found below. For additional information, select the manual section and review the updated text.

If you need to reference the historical Manual Change History for any of the appendices, please reference the retired appendix on the [Retired Forms Manuals](#) webpage.

Date	Manual Section	Add/ Remove/ Modify	Description
6/ 30/ 17	Appendix C: Cytogenetic Assessments	Modify	Appendix R: Cytogenetic Abbreviations and Terminology has been renamed as Appendix C: Cytogenetic Assessments.