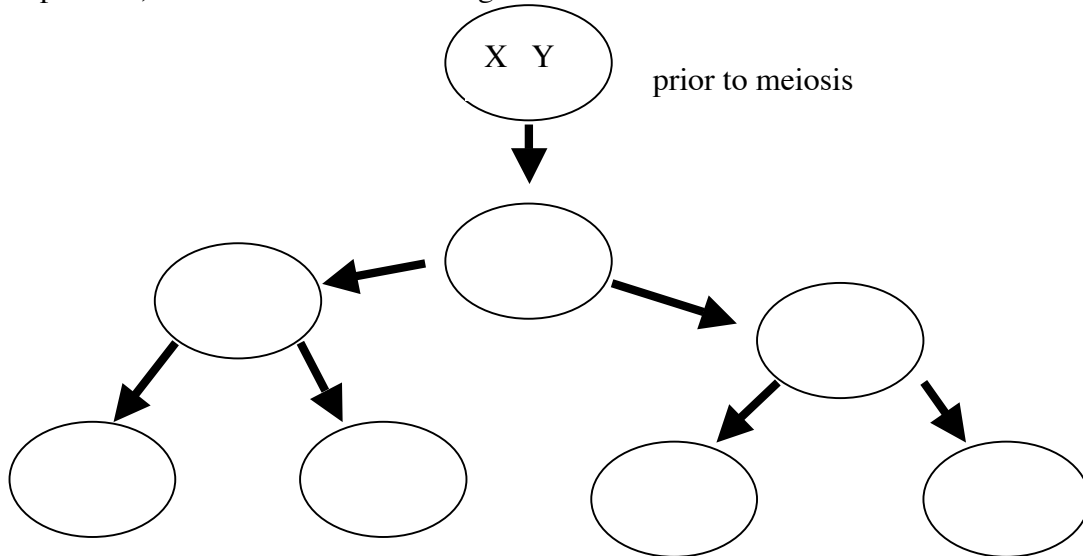
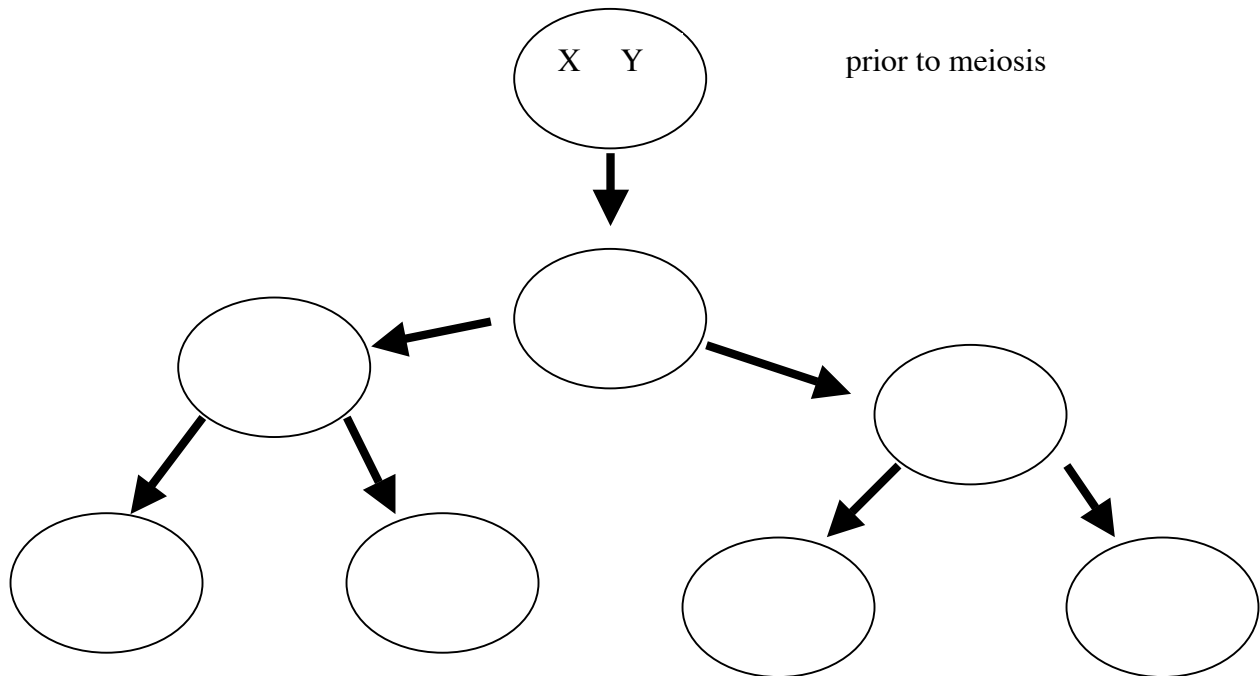


Worksheet on non-disjunction:

(a) Fill in the cells below showing the **NORMAL** process of meiosis of the male's sex chromosomes (XY – the X and Y are representing the entire chromosome, and remember X and Y act like a homologous pair). For the X chromosome in a duplicated state I would use (XX) to show it is duplicated). **DO NOT** show crossing over.



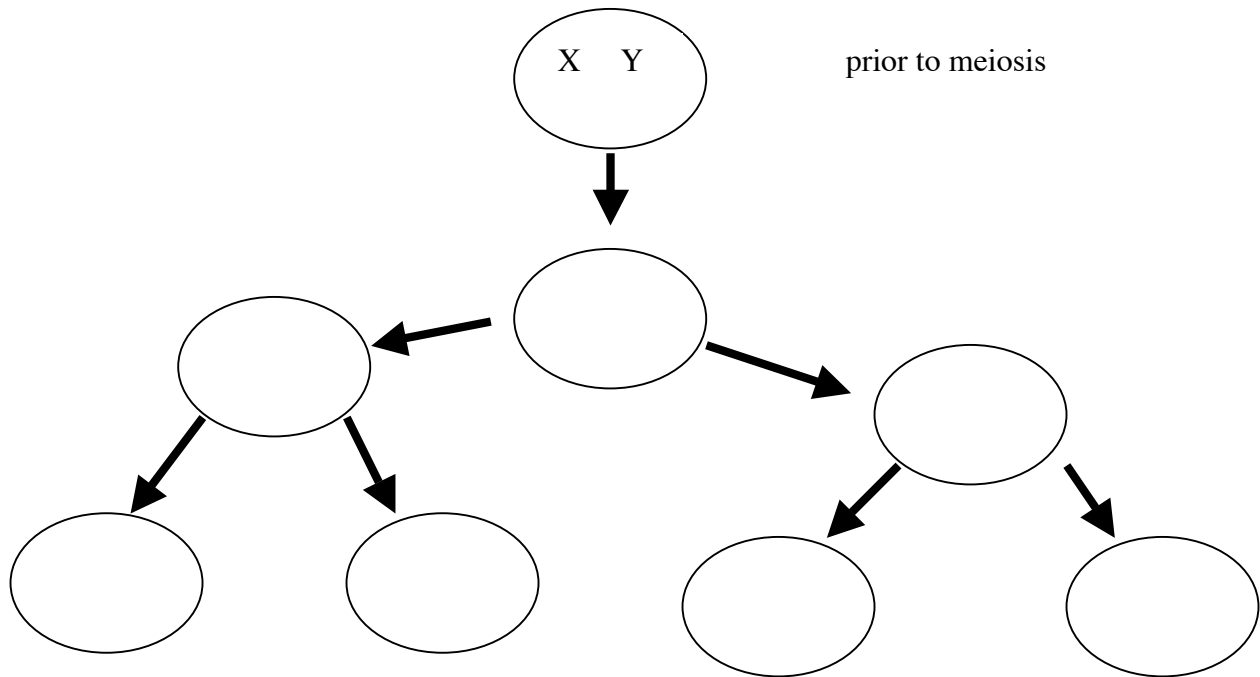
(b) Fill in the cells below showing the process of meiosis of the male's sex chromosomes with **non-disjunction occurring during meiosis I**. **DO NOT** show crossing over.



What are the possible abnormal gametes the male can produce with non-disjunction occurring in Meiosis I?

Could this man father a Turner syndrome (XO) child? Could this man father a Klenfelter's syndrome child (XXY)?

(c) Fill in the cells below showing the process of meiosis of the male's sex chromosomes with **non-disjunction occurring during meiosis II**. DO NOT show crossing over.



What are the possible abnormal gametes the male can produce with non-disjunction occurring in Meiosis II?

Could this man father a Turner syndrome (XO) child? Could this man father a Klenfelter's syndrome child (XXY)?