1. The cell shown below has only 1 pair of chromosomes that are shown after DNA replication has occurred. The cell is about to undergo meiosis and so this chromosome pair has lined up. However, in Meiosis I, there is a mistake and the maternal (M) and paternal (P) chromosomes fail to separate to opposite poles, and instead they end up going together to one pole. Draw the chromosomal content of each cell after Meiosis I and II. Pay careful attention to how you draw sister chromatids and please designate M and P.

2. True or False?

   a) All the rapidly dividing skin cells in a human are genetically identical.
   
   True (more or less). Mitosis.

   b) All the sperm that a human male produces are genetically identical.
   
   False. Meiosis.