MIT Department of Biology 7.013: Introductory Biology - Spring 2005 Instructors: Professor Hazel Sive, Professor Tyler Jacks, Dr. Claudette Gardel

## Whites Have Black Twins in In-Vitro Mix-Up

Please refer to Lyall, Sarah. Foreign Desk: "Whites Have Black Twins in In-Vitro Mix-Up." <i>New York Times</i> , Late Edition - Final, Tuesday, July 9, 2002, section A, p. 12, column 1.
a) What are all of the possible combinations of parents for the twins?
b) If DNA technology were not available (if it were 1950, or you were in an underequipped lab) what test would you perform to sort out the identity of the twins parents? Would this test give you a definitive answer? Why/why not?
c) What DNA tests could be performed now to determine the identity of the parents? Are these assays more or less likely to give definitive results than the test you proposed above? Why/why not?