

**7-10. (2 pts each)** You will send pairs of tubes to a lab for analysis. For each pair of tubes, you are to decide whether replication for the characteristic indicated is present, absent or unknown to you and also whether it would be known to the lab receiving the samples. (Replication means it is the same across both samples.) You know everything given in the table. The lab only knows what is written on the tube: if a tube has a person's name on it, the lab can assume that the tube contents belong to the name of the person on the label and can infer gender but nothing else. If a tube is labeled with a number, the contents are completely unknown to the lab but known to you to the extent given in the table. However, if two tubes are labeled the same, the lab can assume the contents are the same. A question mark (?) indicates that the state of that particular sample is unknown to you. You may be able to use other information in the table to decide its property. (Gender, marker type and blood type do not change from sample to sample of the same individual, even if the assays are sometimes ambiguous.) Your options for tube contents and tube labels are:

<u>tube</u>	<u>tube label</u> -- what you and the lab each see	<u>Contents are from</u> -- what only you see	<u>Gender</u>	<u>Blood type</u>	<u>Marker type</u>
(1)	Chrissie Hynde	Chrissie Hynde	Female	B	negative
(2)	Justin Hayward	Justin Hayward	Male	?	negative
(3)	Margo Timmins	Margo Timmins	Female	A	+
(4)	#2013	Robert Plant	Male	O	?
(5)	#1869	Patsy Cline	Female	A	+
(6)	#1000	James Page	Male	O	+
(7)	Guy Clark	Guy Clark	Male	B	negative
(8)	Nanci Griffith	Nanci Griffith	Female	A	negative
(9)	#2013	Robert Plant	Male	O	?
(10)	#7193	Justin Hayward	Male	A	negative