C1. One would conclude that she has a deletion of the gene that the probe recognizes. To clone this gene, one could begin with a marker that is known to be near band p11 and walk in either direction. This walking experiment would be done on the DNA from a normal person and compared to the DNA from the person described in the problem. At some point, the walk would yield a clone that contained a deletion in the abnormal person, but the DNA would be present in a normal person. This DNA fragment in the normal person should also hybridize to the probe.

C2. A. Yes.

B. No, this is only one chromosome in the genome.

C. Yes.

D. Yes.

C3. A. False, they do not have to carry genes.

B. True.

C. False, the marker may not carry a gene that affects phenotype.

D. True.

E. True.