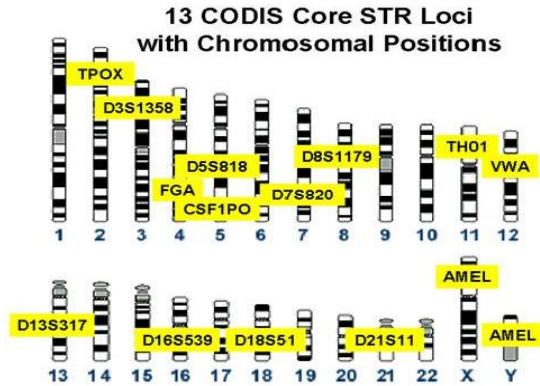


Forensic engineer 1: _____ Date: _____
 Forensic engineer 2: _____

Suspect CODIS Analysis Worksheet Answers



CODIS site: D21S11							
Hair in glove evidence		Suspect 1		Suspect 2		Suspect 3	
G	G	A	G	A	G	T	G
T	T	C	C	C	C	C	G
A	A	A	G	G	G	A	G
G		C	G	T	T	G	G
T		G	G	A	A	T	A
A		T	T	G	T	A	A
G		A	A	T	A	G	T
T		G	G	A	G	T	G
A		A	T	G	T	A	A
		A	A	T	C	A	A
		T	G	A	G	T	T
		G	T	G	T	G	C
		A	A	A	A	A	T

1. Which suspect's DNA matches the DNA of the evidence hair at CODIS site D21S11? _____
Answer: Suspects 1 and 2

CODIS site: TH01							
Hair in glove evidence		Suspect 1		Suspect 2		Suspect 3	
T	T	T	G	A	G	T	T
T	T	T	C	C	C	T	T
T	T	C	T	G	G	T	T
C	C	G	C	T	T	C	C
	T	G	G	A	A	T	A
	T	T	T	T	T	A	T
	T	T	C	T	T	G	T
	C	T	C	T	T	T	T
		T	T	C	C	A	C
		C	A	T	T	A	A
		G	G	A	T	T	T
		G	T	G	T	G	C
		A	A	A	C	A	T

2. Which suspect's DNA matches the DNA of the evidence hair at CODIS site TH01? _____
Answer: Only suspect 2

CODIS site: VWA							
Hair in glove evidence		Suspect 1		Suspect 2		Suspect 3	
C	C	A	G	C	C	C	C
G	G	C	C	G	G	G	G
C	C	A	G	C	C	C	C
G	G	C	G	G	G	G	G
C	C	G	G	C	C	T	A
G	G	T	T	G	G	A	A
C	C	C	C	C	C	G	T
G	G	G	G	G	G	T	G
C	C	C	C	C	C	A	A
G	G	G	G	G	G	A	A
		T	G	A	G	T	T
		G	T	G	T	G	C
		A	A	A	A	A	T

3. Which suspect's DNA matches the DNA of the evidence hair at CODIS site VWA? _____

Answer: Only suspect 2

CODIS site: AMEL							
Hair in glove evidence		Suspect 1		Suspect 2		Suspect 3	
A	A	A	A	A	G	T	T
T	T	T	T	C	C	T	T
C	C	C	C	A	A	T	T
G	G	G	G	T	T	C	C
	A	G	A	C	C	T	A
	T	T	T	G	G	A	T
	C	T	C	A	T	G	T
	G	T	G	T	T	T	T
		T	T	C	C	A	C
		C	A	G	T	A	A
		G	G	A	T	T	T
		G	T	G	T	G	C
		A	A	A	C	A	T

4. Which suspect's DNA matches the DNA of the evidence hair at CODIS site AMEL? _____

Answer: Suspects 1 and 2

5. Based on your 4-site CODIS analysis, which suspect do you think is the bank robber? _____

Suspect 2 matches for each of the 4 CODIS sites. Suspect 2 is the suspect possible at this point.

6. What is the chance that the suspect you think did it actually did not do it? (Remember, there is a one in 10 chance that one CODIS site will match.) _____

$(1/10)^4$ = one in 10,000 chance that suspect 2 did not do it (it is just a random match).

7. How would you increase the certainty of your result?

We should look at all 13 CODIS sites. If suspect 2 matches all 13, it is certainly his/her hair that was found in the glove.