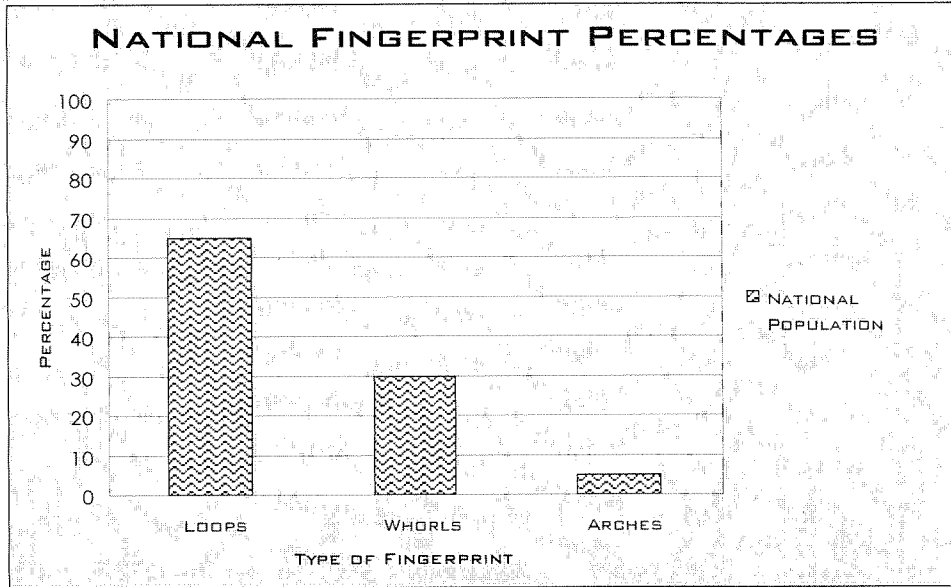


Name: _____

Date: _____

STICKY FINGERS

The chart below shows the how often each of these types of fingerprints occur in the national population. Use this chart to answer the following questions.



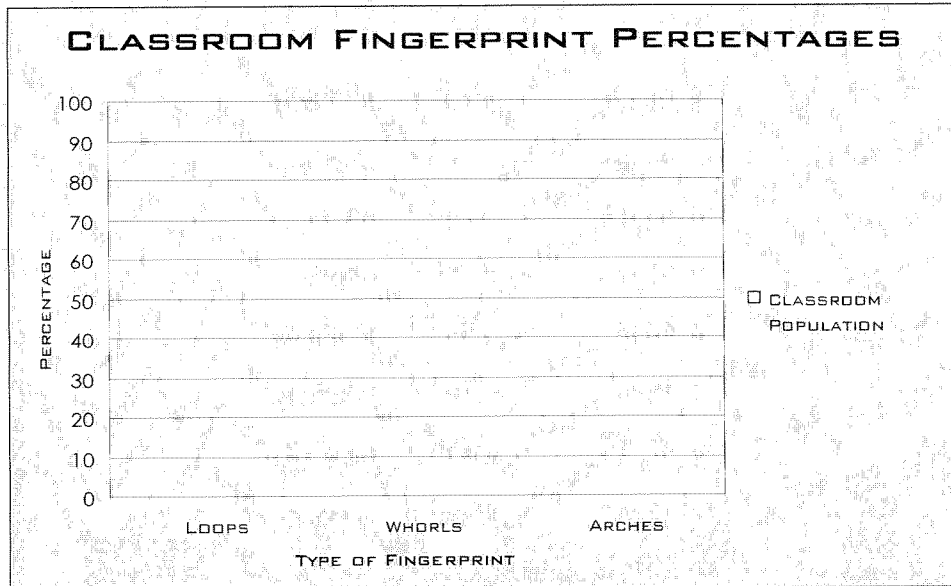
1. What percentage of fingerprints in the national population are loops?
2. What percentage of fingerprints in the national populations are whorls?
3. What percentage of fingerprints in the national population are arches?
4. Which is greater: the number of loop fingerprints in the national population, or the number of whorl fingerprints plus the number of arch fingerprint?
5. In a random sampling of 1000 fingerprints from the national population, approximately how many arch fingerprints can you expect to find?

Name: _____

Date: _____

STICKY FINGERS

Use the data collected from your class as a whole to fill in the next graph. Use the data from both graphs to answer the following questions.



1. Does the graph of fingerprints in your class look the same as the graph of the national averages? Why or why not?

2. Would you predict that a graph of fingerprint patterns from another class would look the same as your graphs? Why or why not? How could you find out if your prediction is correct?

3. The fingerprints from a recent crime scene are shown on the next page. Using the data from the national population would you say this suspect has common fingerprints? Why or why not?

Name: _____

Date: _____

STICKY FINGERS

EVIDENCE FROM CASE #4589241-B

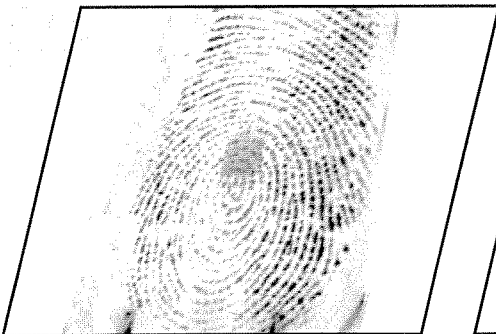
FINGERPRINTS FROM CRIME SCENE



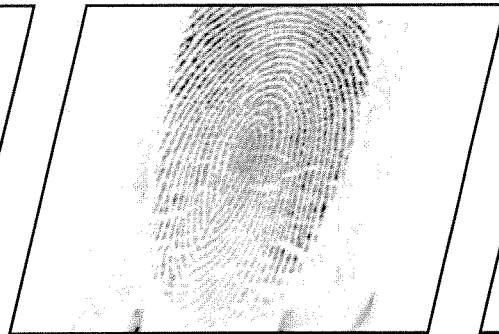
FROM CASH REGISTER



FROM DISPLAY CASE



FROM CASH REGISTER



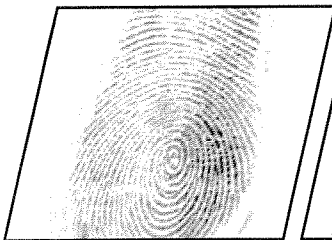
FROM DOOR



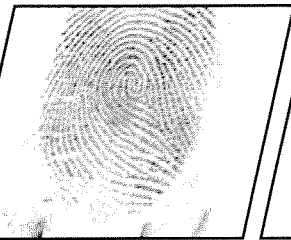
FROM DOOR

SUSPECT'S FINGERPRINTS

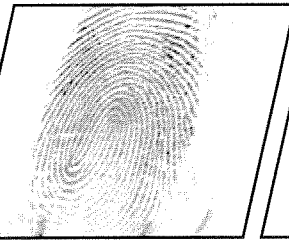
RIGHT HAND



THUMB



INDEX



MIDDLE

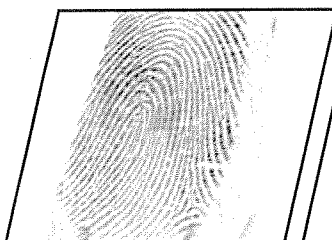


RING



PINKIE

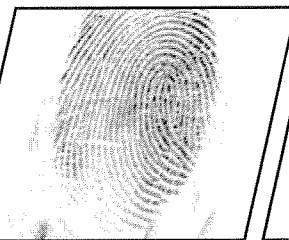
LEFT HAND



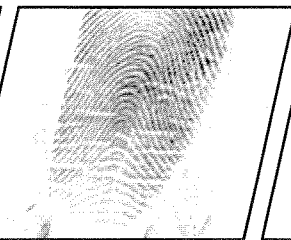
THUMB



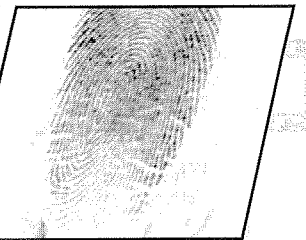
INDEX



MIDDLE



RING



PINKIE

Name: _____

Date: _____

STICKY FINGERS

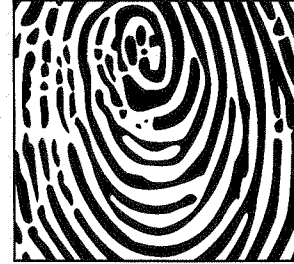
Part 2: Do the suspect's fingerprints match those at the crime scene?

In the previous exercise, you should have noticed that everybody has similar fingerprints. For example, many students in your class may have fingerprints that are all loops, or nine loops and a whorl. If everyone's fingerprints are so similar, how can forensic scientists link certain fingerprints to a specific individual?

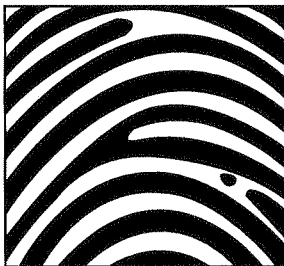
Forensic scientists use ridge characteristics to identify an individuals' fingerprints. These include:



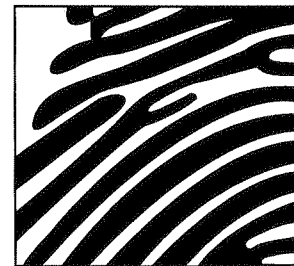
RIDGE ENDING



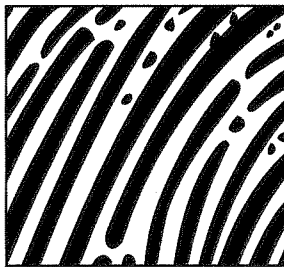
LAKE (ENCLOSURE)



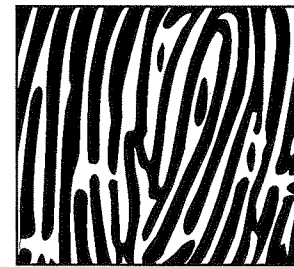
BIFURCATION



HOOK (SPUR)



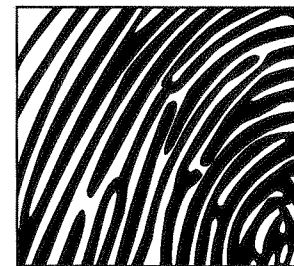
DOT



DOUBLE BIFURCATION



ISLAND (SHORT RIDGE)



OPPOSED BIFURCATION

Name: _____

Date: _____

STICKY FINGERS

Three weeks ago a local bakery was robbed at gunpoint. The thief wore a mask, so even when the police found a suspect the bakery owner couldn't make a positive ID. However, as the CSI processing the scene, you collected several fingerprints from various parts of the bakery.

The police have identified a suspect, but he says he's never been to that bakery. It's your job to see if the suspect's fingerprints match any of those recovered at the scene of the crime.

1. Can you identify any ridge characteristics on the suspects prints? on the prints from the crime scene? Circle and label any ridge characteristics you find.

2. Do any of the crime scene fingerprints match the suspect's fingerprints? Label any matching crime scene fingerprints with the hand and finger they come from.

3. Do any of the crime scene prints NOT match the suspect's prints? Who do you think could have contributed these prints?

4. Do you think the suspect committed this crime? Why or why not?