**Directions:** Use your notes to fill in the blanks and answer the questions in order to prepare for the upcoming unit exam.

 **Questioned Documents:** Any document about which some issue has been raised or that is the subject of a

investigation. Examples of Questioned Documents:

* Checks
* Licenses and Certificates
* Passports
* (Counterfeit) Money
* Receipts
* Lottery tickets
* Historical documents
* Ransom and suicide notes
* Forgeries of Art

**Document Examiners:** Mostly examine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to originate its source or its authenticity

* Will also examine typed writings, computer printings, photocopies, inks, papers, and forgeries, and decode altered and charred documents
* May need to use microscopes, photographs, chromatography, and other lab examinations on the questioned documents
* Many work in federal, local, and state crime labs, but they may also work in private practices

**Handwriting:** Two individuals cannot have exactly identical handwriting and since handwriting is associated with mechanical, physical, and mental functions, it is almost impossible to reproduce exactly. Handwriting can be *almost* as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ as a person’s fingerprint.

* + A positive comparison must be based on an ample number of common characteristics between known and questioned writings
	+ Collecting a lot of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(known writings) is critical in order to make a comparison
	+ Exemplars should contain some of the same words or combinations of letters that are present in the questioned document(s)
1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the questionable document for detectable traits and record them
2. Obtain a known sample of the suspect’s writing (an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
3. Compare and draw conclusions about the authorship of the questionable document.

-Why won’t investigators give the suspect the actual ransom note in question?

-Is handwriting biological or physical evidence?

-Is handwriting direct or circumstantial evidence?

-Is handwriting class or individual evidence?

**Twelve Things to look for (and draw examples):**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Are the lines smooth, free-flowing? Or shaky and wavering?

 Example:

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Are the letters and words equally spaced or crowded?

 Example:

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Examine the relative height, width and size of letters. Is it consistent?

 Example:

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Is the writing continuous or does the writer lift the pen?
 Example:

5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Compare the strokes between upper and lower case letters. Are they connected?

 Example:

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Look at beginning and ending strokes. Are letters completely formed?

 Example:

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Are there printed letters, cursive letters, or both?

 Example:

8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Differing amounts of pressure used by the writer can make lines light or dark, narrow or wide. Is pressure equal when applied to upward and downward strokes?

 Example:

9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: analyzing the writing slant- left, right, straight, or variable?

 Example:

10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: are the writer’s letters on, above, or below the baseline.

 Example:

11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Are there any fancy letters, curls, loops, circles, or other embellishments?

 Example:

12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: Are t’s crossed in the middle, towards the top, or bottom? Where is the placement of the dot (or circle, heart, etc.) above lowercase i’s?

 Example:

**Explain how these factors could affect handwriting samples:**

* Position of writer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Position of Document: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Other Factors: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Type of writing instrument: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Writing surface: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Underlying surface: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Mood of writer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Age of writer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Writing speed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**To analyse of the Tops & Bottoms of Letters and the Slants of Letters:**

* Draw a dot at the top of each letter and connect the dots
* Draw a line through the center of each letter (maintaining the slant of the letter)

Draw dots and slants to show how you would perform both tasks below:

Dots: Slants:



**Analyzing Ink:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a method of physically separating the components of inks. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Rf) represents how far a compound moves in a solution. It is calculated by dividing the movement of the compound by the movement of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Forged documents include**: checks, employment records, legal agreements, licenses, wills

**Check forgery can include:**

* + ordering another’s checks from a deposit slip
	+ altering a check
	+ intercepting another’s check, altering, and cashing it
	+ creating a check from scratch

**Preventing Check Forgery**

* Chemically sensitive paper
* Large font size requires more ink and makes alterations more difficult
* High resolution borders that are difficult to copy
* Multiple color patterns
* Embed fibers that glow under different light
* Use chemical wash detection systems that change color when a check is altered

Define Literary Forgery: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Define Counterfeiting: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* This is a criminal activity existing since antiquity
* Items commonly forged today include: Currency, Traveler’s checks, Food stamps, Certain bonds, Postage stamps

**Counterfeit Currency**

* Security features are added to paper currency that scanning cannot reproduce
* Regular printer paper contains \_\_\_\_\_\_\_\_\_\_; Paper currency contains \_\_\_\_\_\_\_\_\_\_\_\_\_ instead of starch.
	+ Number one reason people suspect fakes is because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_: used for the black print on the front side of the notes and the green print on the back side. The Treasury seal, Federal Reserve seal, and serial numbers are printed by a typographic or letterpress process
* Two serial numbers printed in green ink on the face of each note.
* No two notes of the same series, bank, and denomination have the same serial number.
* The Federal Reserve banks are designated by a letter and a corresponding numeral. The first character of the serial number is a letter that designates the Federal Reserve Bank and matches the letter in the Federal reserve seal. Corresponding numerical designation of the Federal Reserve Bank is printed in four locations on the face of each note.
* Portrait stands out and appears raised off the paper
* Contains clear red and blue fibers woven throughout the bill
* Has clear, distinct border edges
* Treasury seal is shown with clear, sharp saw-tooth points
* Watermark appears on the right side of the bill in the light
* The security thread is evident—a thin embedded vertical strip with the denomination of the bill printed in it
* There is minute printing on the security threads, as well as around the portrait
* When the bill is tilted, the number in the lower right-hand corner makes a color shift from copper to green



Identify the serial number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How can you determine what bank it is from?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Where is the treasury seal? Circle it.

What part of the bill will change colors when tilted? Box them in.

Where is the security thread? Draw it in.

Where are the water marks? Draw them in.