DNA Fingerprinting / worksheet

1. The DNA fingerprints were made from blood samples taken from a puppy and four possible sires of this puppy in an effort to determine the puppy’s pedigree. According to this information, which sire was probably the father of this puppy? CIRCLE YOUR ANSWER.

   a. A  
   b. B  
   c. C  
   d. D

2. The picture shows a segment of DNA from a cat. Which of these is most likely the kitten of this cat? CIRCLE YOUR ANSWER.

   a. 1  
   b. 2  
   c. 3  
   d. 4

3. Mrs. Smith has a baby named Tyra. She believes one of two men can be the father of her child. A paternity test is done and the results are shown above. Which of the 2 men are baby Tyra’s father?

   baby  mom  dad 1  dad 2
   [DNA gel image]

4. Lt. Russ is investigating a murder scene. The felon was scratched by his victim & some of his skin cells were found under the victim’s fingernails. A DNA test was performed. Which of the suspects is the murderer?

   felon  S 1  S 2  S 3
   [DNA gel image]
5. Suzy was assaulted in an alley and is a victim of rape. The police collected a sample of sperm that was left at the crime scene and now have 3 suspects in custody. Which of the suspects raped Suzy? ____________________

6. The millionaire, Mr. Big, has just died. He has left behind a wife, daughter and a large inheritance. The news of his death has brought forth 2 men who claim to be the long lost son of Mr. & Mrs. Big. Before Mr. & Mrs. Big were married they had an illegitimate child and had placed him up for adoption. They had tried to find him after they became wealthy but had no luck in locating him. A DNA sample was taken from Mrs. Big, the Big daughter and the two men who claim to be the long lost son. Which, if any, of the men are telling the truth? _____________

7. Mr. & Mrs. Jones just gave birth to fraternal twins- Bob and Jane. Unfortunately, the nurse has confused the Jones twins with 4 other babies. The doctors took samples of DNA from each of the babies and Mr. & Mrs. Jones. Which of the 6 children are Mr. & Mrs. Jones twins? ____________________