Virtual Skeleton Identification

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-

PART 1: Gender & Ethnicity

A - Pelvis

Provide the information about the differences between the male and female pelvis.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gender | Angle of Ischium | Sacrum Tilt | Ilium Spread | Pelvic Outlet |
| Female |  |  |  |  |
| Male |  |  |  |  |

Identify the characteristics of each pelvis (circle your answer) then decide if it belongs to a female or a male:

|  |  |
| --- | --- |
| Pelvis #1 | Pelvis #2 |
| Angle > 90 degrees or < 90 degrees | Angle > 90 degrees or < 90 degrees |
| Sacrum Forward or Backward | Sacrum Forward or Backward |
| Pelvic Outlet Small or Large | Pelvic Outlet Small or Large |
| Ilia Close or Spread | Ilia Close or Spread |
| Female or Male | Female or Male |

B - Skull

Provide the information about the differences between the male and female pelvis.

|  |  |  |
| --- | --- | --- |
| Landmarks | Female | Male |
| Chin |  |  |
| Mastoid Process  (Behind Ear) |  |  |
| External Occipital Protuberance  (Back of Skull) |  |  |
| General Anatomy |  |  |
| Forehead |  |  |
| Brow Ridges  (Location of Eyebrows) |  |  |
| Muscle Lines |  |  |
| Orbital Margins  (Edge of Eye Socket) |  |  |
| Angle of Ascending Ramus  (Back Corner of the Jaw) |  |  |

Provide the information about the differences between the male and female skulls.

|  |  |
| --- | --- |
| Skull #1: | Skull #2 |
| Chin Rounded or Square | Chin Rounded or Square |
| Mastoid Process Small or Large | Mastoid Process Small or Large |
| Occipital Protuberance Small or Large | Occipital Protuberance Small or Large |
| General Anatomy Gracile or Robust | General Anatomy Gracile or Robust |
| Forehead Vertical or Receding | Forehead Vertical or Receding |
| Brow Ridges Slight or Prominent | Brow Ridges Slight or Prominent |
| Muscle Lines Slight or Prominent | Muscle Lines Slight or Prominent |
| Orbital Margins Sharp or Rounded | Orbital Margins Sharp or Rounded |
| Angle of Ramus 90 degrees or Obtuse | Angle of Ramus 90 degrees or Obtuse |

Gender Female or Male Gender Female or Male

Identify the three skulls based on their dental arch and the shape of their incisors:

|  |  |  |
| --- | --- | --- |
| Skull #1 | Skull #2 | Skull #3 |
| Arch Shape  Hyperbola, Parabola, or  Rounded | Arch Shape  Hyperbola, Parabola, or Rounded | Arch Shape  Hyperbola, Parabola, or Rounded |
| Incisor Spatulate or Shovel-  shaped | Incisor Spatulate or Shovel-shaped | Incisor Spatulate or Shovel-  shaped |
| RACE African Asian Caucasian | RACE African Asian Caucasian | RACE African Asian Caucasian |

PART 2: Age

Tell which of the spines below is old or young, arthritic and not arthritic:

|  |  |
| --- | --- |
| Spine #1 | Spine #2 |
| Arthritic Yes or No | Arthritic Yes or No |
| Younger or Older | Younger or Older |

Compare the two skulls to determine which skull is from an adult, and which is from an adolescent:

|  |  |
| --- | --- |
| Skull #1 | Skull #2 |
| Frontal Suture Present or Absent | Frontal Suture Present or Absent |
| Other Sutures "Open" or "Closed" | Other Sutures "Open" or "Closed" |
| Adolescent or Adult | Adolescent or Adult |

Examine the radiographs, and determine whether they are from adults or children:

|  |  |
| --- | --- |
| Bone #1 | Bone #2 |
| Epiphyseal Plate or Line | Epiphyseal Plate or Line |
| Adult or Child | Adult or Child |

PART 3: Height

Now plug in the following numbers into the formula to determine the height to the nearest 1/2 inch (expressed both as inches -- x" -- and as feet and inches -- x' + y") of the deceased:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Gender | Bone | Length | Calculations  SHOW YOUR WORK! | Height  x"  in Inches | Height  x' + y"  (Feet +  Inches) | Multiply by  2.54 to get the  Height  in cm |
| Female | Femur | 17.9" |  |  |  |  |
| Male | Femur | 17.9" |  |  |  |  |
| Female | Humerus | 11.5" |  |  |  |  |
| Male | Humerus | 11.5" |  |  |  |  |
| Female | Radius | 9.3" |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Male | Radius | 9.3" |  |  |  |  |

QUESTIONS:

1. What is the easiest way to determine the gender (using the skeleton) of an individual, and why?

2. What is the easiest way to tell (using the skeleton) whether a teenager is lying about her/his age, and why?

3. Why can determining gender from a skull be difficult?

4. Why should a forensic anthropologist use more than one bone (if possible) to determine the height of an   
 individual?

5. What other issue is important to question four, especially if there is only one bone from which to work?