

**MULTIPLE CHOICE**

1. A vertical plane that passes through the body, dividing it into anterior and posterior portions, is the \_\_\_\_\_ plane.
- Sagittal
  - Coronal
  - Axial
  - Oblique

ANS: B                      OBJ: Define the four anatomic planes.

2. The directional term *contralateral* refers to which of the following?
- On the same side
  - On the opposite side
  - Toward the midsagittal plane
  - Away from the midsagittal plane

ANS: B  
OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

3. The directional term *rostral* refers to which of the following?
- The front or palm of the hand
  - The sole of the foot
  - Toward the feet
  - Toward the nose

ANS: D  
OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

4. The term *popliteal* refers to the area of the:
- Upper portion of the leg
  - Back of the knee
  - Lower portion of the leg
  - Sole of the foot

ANS: B  
OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

5. The term *flank* refers to the area of the:
- Upper chest or breast
  - Lower back between the ribs and hips
  - Side of the trunk adjoining the lumbar region
  - Abdomen

ANS: C  
OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

6. The aortic arch is located:
- 2.5 cm below the jugular notch
  - At T4-T5, sternal angle
  - 4 cm above the transpyloric plane
  - 2 cm above the transpyloric plane

ANS: A                      OBJ: Identify the location of commonly used internal landmarks.

7. The carotid bifurcation is located:
- 4 cm above the pyloric plane
  - 4 cm above bifurcation of the abdominal aorta
  - At the upper border of the thyroid cartilage
  - At the upper margin of the sacroiliac joint

ANS: C                      OBJ: Identify the location of commonly used internal landmarks.

8. The inferior mesenteric artery is located:
- 2 cm above the transpyloric plane
  - 4 cm above the transpyloric plane
  - 2.5 cm below the jugular notch
  - 4 cm above the bifurcation of the abdominal aorta

ANS: D                      OBJ: Identify the location of commonly used internal landmarks.

9. Most of the small intestine is located in which of the abdominal quadrants?
- Right upper quadrant (RUQ)
  - Right lower quadrant (RLQ)
  - Left upper quadrant (LUQ)
  - Left lower quadrant (LLQ)

ANS: D                      OBJ: List the structures located within the four abdominal quadrants.

10. Which of the body cavities is the largest?

- a. Dorsal
- b. Ventral
- c. Abdominal
- d. Pelvic

ANS: B

OBJ: Describe the dorsal and ventral cavities of the body.

11. The plane that passes diagonally between the axes of two other planes is the \_\_\_\_\_ plane.

- a. Sagittal
- b. Coronal
- c. Axial
- d. Oblique

ANS: D

OBJ: Define the four anatomic planes.

12. The directional term *caudal* refers to which of the following?

- a. On the same side
- b. On the opposite side
- c. Toward the feet
- d. Toward the head

ANS: C

OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

13. The directional term *proximal* refers to which of the following?

- a. On the same side
- b. On the opposite side
- c. Away from a reference point
- d. Toward a reference point

ANS: D

OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

14. The term *axillary* refers to the area of the:

- a. Armpit
- b. Forearm
- c. Front of elbow
- d. Upper arm

ANS: A

OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

15. The term *cubital* refers to the area of the:

- a. Lower posterior portion of the leg
- b. Posterior surface of elbow area of the arm
- c. Lower back between the ribs and hips
- d. Upper portion of the leg

ANS: B

OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

16. The term *antebrachial* refers to the area of the:

- a. Armpit
- b. Ribs
- c. Forearm
- d. Upper arm

ANS: C

OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

17. The term *inguinal* refers to the area of the:

- a. Spine
- b. Naval
- c. Sternum
- d. Groin

ANS: D

OBJ: Describe the relative position of specific structures within the body using directional and regional terminology.

18. The carina is located at:

- a. L4 to L5.
- b. T4 to T5, sternal angle.
- c. L1 to L2.
- d. T1 to T2, sternal angle.

ANS: B

OBJ: Identify the location of commonly used internal landmarks.

19. The dorsal cavity can be further subdivided into which of the following cavities?

- a. Cranial and spinal
- b. Thoracic and abdominopelvic
- c. Two lateral pleural
- d. Abdominal and pelvic

ANS: A

OBJ: Describe the dorsal and ventral cavities of the body.

20. The stomach and tail of the pancreas are located in which of the following abdominal quadrants?

- a. Right upper
- b. Left upper
- c. Right lower
- d. Left lower

ANS: B

OBJ: List the structures found within the four abdominal quadrants.

21. Which of the following is a parameter that allows for the adjustment of the gray scale?

- a. CT number
- b. Hounsfield unit
- c. Window width
- d. Window level

ANS: C

OBJ: Describe the gray scale used in CT and MR imaging.

22. Images reconstructed from data obtained along any projection through the cube that result in a sagittal, coronal, transverse, or oblique image are termed:

- a. Multiplanar reformation
- b. Shaded surface display
- c. Maximum intensity projection
- d. Volume rendering

ANS: A

OBJ: Describe MPR, CPR, SSD, MIP, and VR.

23. Which of the following techniques can be described as a ray from the camera's view point that is directed to stop at a particular user-defined threshold value?

- a. Multiplanar reformation
- b. Shaded surface display
- c. Maximum intensity projection
- d. Volume rendering

ANS: B

OBJ: Describe MPR, CPR, SSD, MIP, and VR.

24. Water is used as a reference tissue and is given the CT number of:

- a. -1000
- b. -500
- c. 0
- d. +1000

ANS: C

OBJ: Describe the gray scale used in CT and MR imaging.

25. The transpyloric plane is found midway between the:

- a. Xiphosternal joint and the pubic symphysis
- b. Xiphosternal joint and umbilicus
- c. Tubercles of the iliac crests
- d. Tubercles of the iliac crests and L3

ANS: B

OBJ: List the nine regions of the abdomen.

26. Which of the following is a midline point at the anterior nasal spine where the upper lip and nasal septum meet?

- a. Nasion
- b. Gonion
- c. Mastoid tip
- d. Acanthion

ANS: D

OBJ: Identify commonly used external landmarks.

27. The crest of the ilium is located at what vertebral level?

- a. L2
- b. L3
- c. L4
- d. L5

ANS: D

OBJ: Identify commonly used external landmarks.

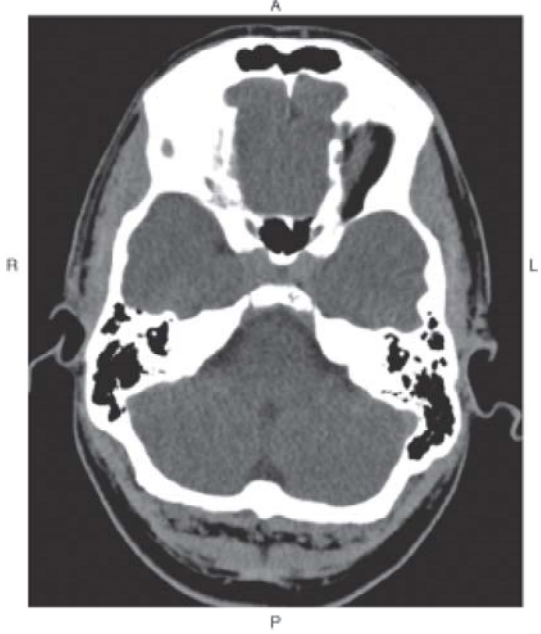
28. The figure below illustrates which of the following imaging planes?



- a. Axial
- b. Coronal
- c. Sagittal
- d. Oblique

ANS: B                      OBJ: Define the four anatomic planes.

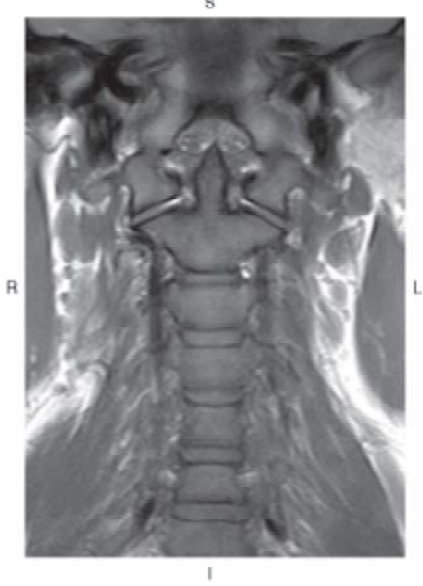
29. The figure below illustrates which of the following imaging planes?



- a. Axial
- b. Coronal
- c. Sagittal
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ANS: A                      OBJ: Define the four anatomic planes.

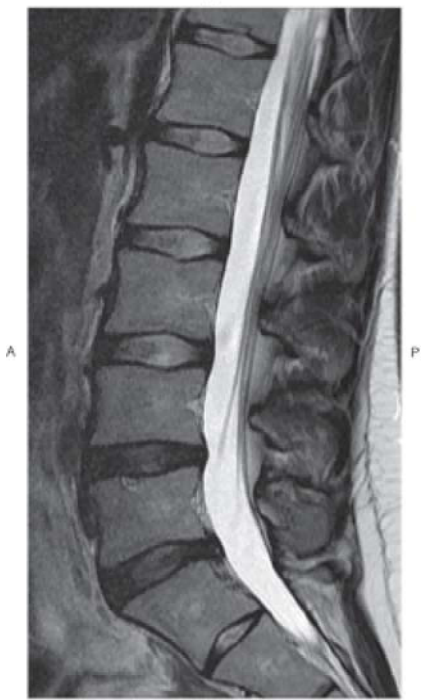
30. The figure below illustrates which of the following imaging planes?



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- b. Coronal
- c. Sagittal
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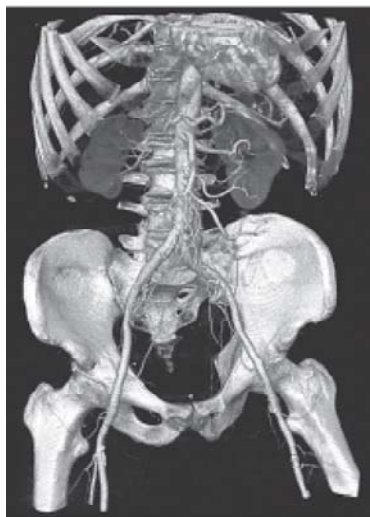
31. The figure below illustrates which of the following imaging planes?



- a. Axial
- b. Coronal
- c. Sagittal
- d. Oblique

ANS: C                      OBJ: Define the four anatomic planes.

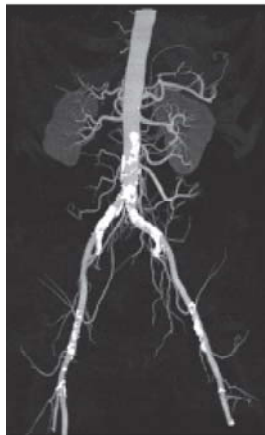
32. The figure below is an example of which of the following?



- a. Multiplanar reformation
- b. Shaded surface display
- c. Maximum intensity projection
- d. Volume rendering

ANS: B                      OBJ: Describe MPR, CPR, SSD, MIP, and VR.

33. The figure below is an example of which of the following?



- a. Multiplanar reformation
- b. Shaded surface display
- c. Maximum intensity projection
- d. Volume rendering

ANS: C                      OBJ: Describe MPR, CPR, SSD, MIP, and VR.

34. All of the following image algorithms use the principle of ray-tracing, *except*:

- a. Shaded surface display (SSD)
- b. Maximum intensity projection (MIP)
- c. 2D imaging
- d. Volume rendering (VR)

ANS: C                      OBJ: Differentiate between 2D and 3D images.