

# THE SKULL

## PART A

Match the bones in column A with the features in column B. Place the letter of your choice in the space provided.

**Column A**

- a. Ethmoid bone
- b. Frontal bone
- c. Occipital bone
- d. Parietal bone
- e. Sphenoid bone
- f. Temporal bone

**Column B**

- \_\_\_\_\_ 1. Forms sagittal, coronal, squamosal, and lambdoidal sutures
- \_\_\_\_\_ 2. Cribriform plate
- \_\_\_\_\_ 3. Crista galli
- \_\_\_\_\_ 4. External auditory meatus
- \_\_\_\_\_ 5. Foramen magnum
- \_\_\_\_\_ 6. Mandibular fossa
- \_\_\_\_\_ 7. Mastoid process
- \_\_\_\_\_ 8. Middle nasal concha
- \_\_\_\_\_ 9. Occipital condyle
- \_\_\_\_\_ 10. Sella turcica
- \_\_\_\_\_ 11. Styloid process
- \_\_\_\_\_ 12. Supraorbital foramen

## PART B

Complete the following statements:

1. The \_\_\_\_\_ suture joins the frontal bone to the parietal bones.
2. The parietal bones are fused along the midline by the \_\_\_\_\_ suture.
3. The \_\_\_\_\_ suture joins the parietal bones to the occipital bone.
4. The temporal bones are joined to the parietal bones along the \_\_\_\_\_ sutures.
5. Name the three cranial bones that contain sinuses. \_\_\_\_\_  
\_\_\_\_\_
6. Name a facial bone that contains a sinus. \_\_\_\_\_

**PART C**

Match the bones in column A with the characteristics in column B. Place the letter of your choice in the space provided.

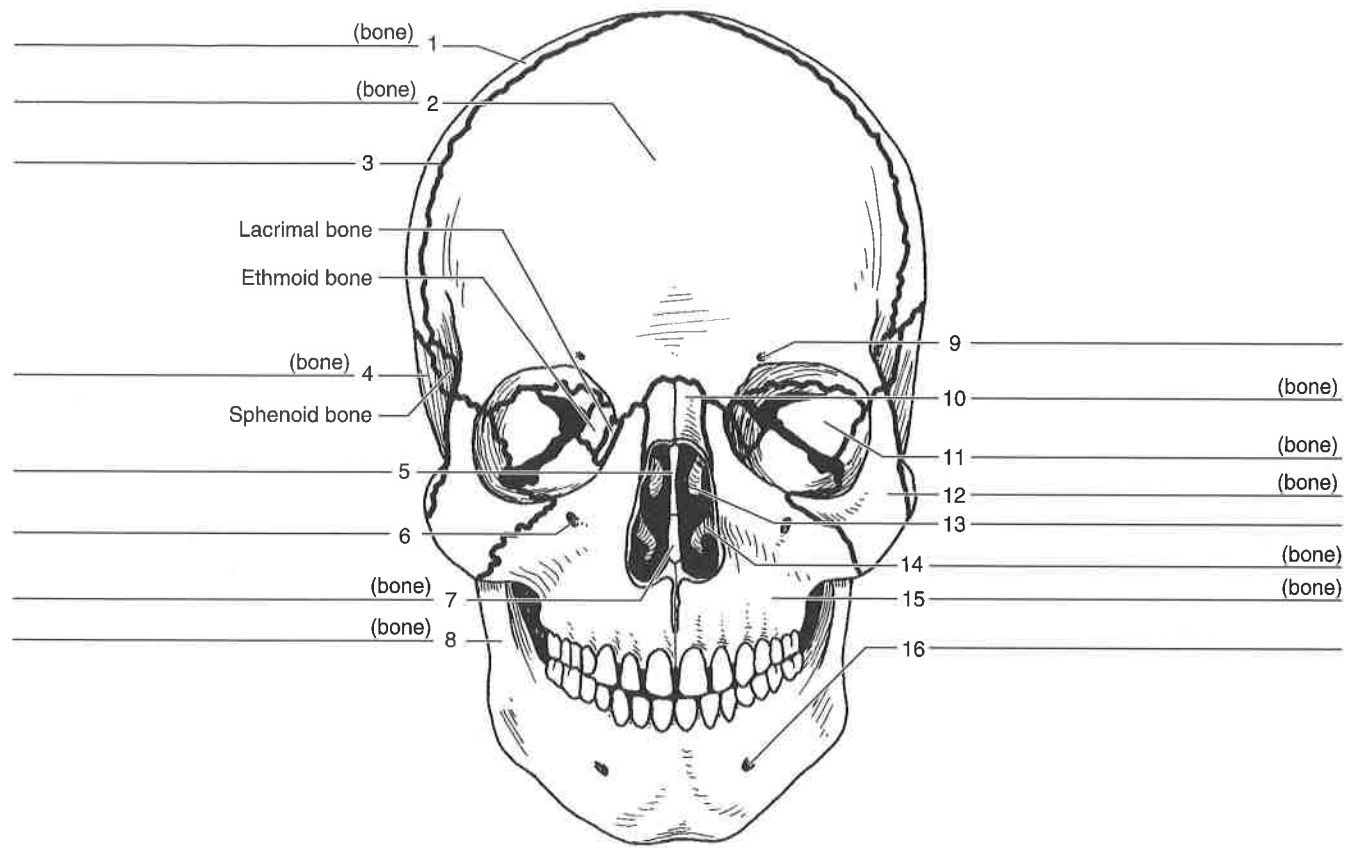
- | <b>Column A</b>          | <b>Column B</b>  |
|--------------------------|--|
| a. Inferior nasal concha | _____ 1. Forms bridge of nose  |
| b. Lacrimal bone         | _____ 2. Only movable bone in facial skeleton                        |
| c. Mandible              | _____ 3. Contains coronoid process                                   |
| d. Maxillary bone        | _____ 4. Creates prominence of cheek inferior and lateral to the eye |
| e. Nasal bone            | _____ 5. Contains sockets of upper teeth                             |
| f. Palatine bone         | _____ 6. Forms inferior portion of nasal septum in back              |
| g. Vomer bone            | _____ 7. Forms anterior portion of zygomatic arch                    |
| h. Zygomatic bone        | _____ 8. Scroll-shaped bone  |
|                          | _____ 9. Forms anterior roof of mouth                                |
|                          | _____ 10. Forms posterior roof of mouth                              |
|                          | _____ 11. Scalelike part in medial wall of orbit                     |

**PART C**

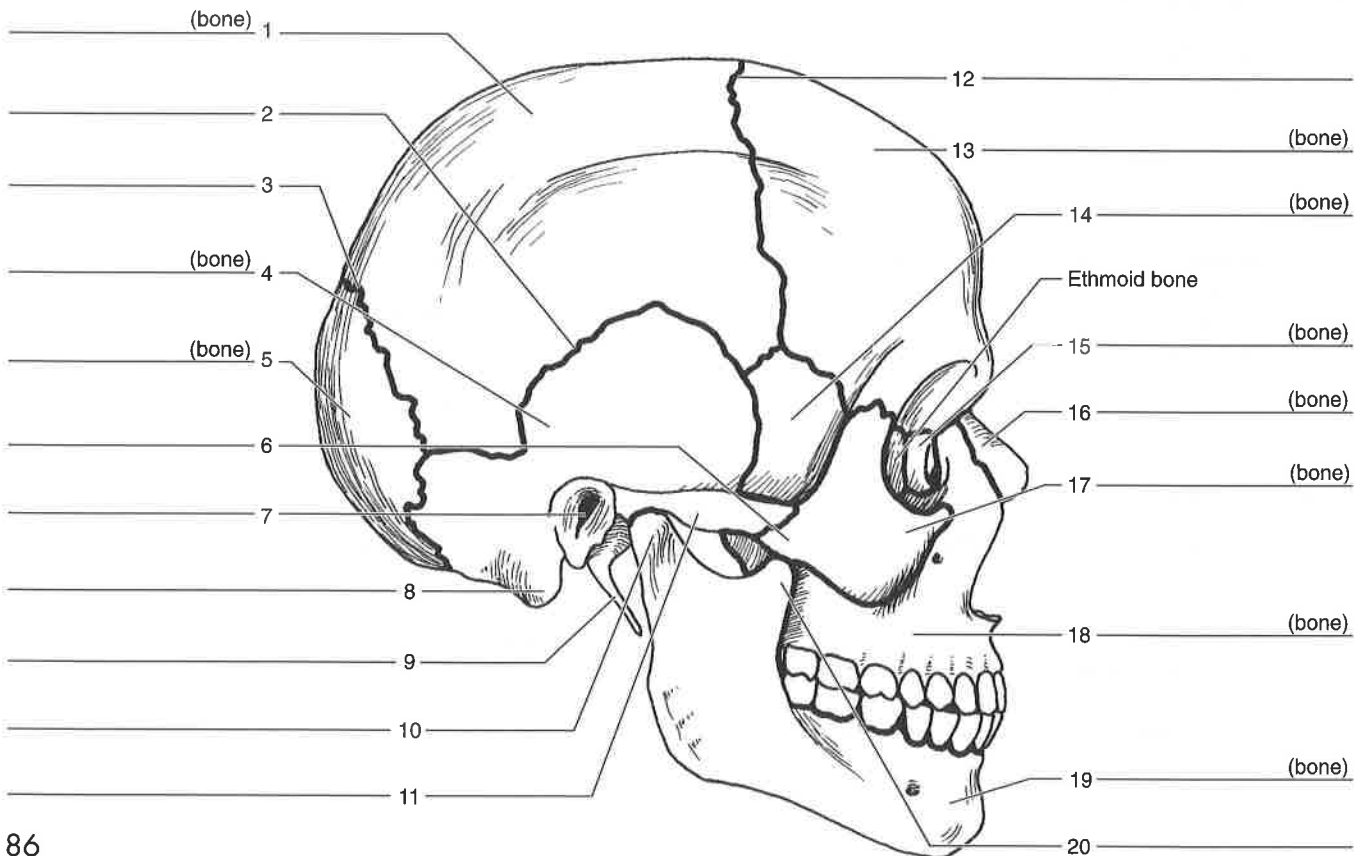
Match the bones in column A with the characteristics in column B. Place the letter of your choice in the space provided.

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| h. Zygomatic bone        | _____ 8. Scroll-shaped bone  |
|                          | _____ 9. Forms anterior roof of mouth                                |
|                          | _____ 10. Forms posterior roof of mouth                              |
|                          | _____ 11. Scalelike part in medial wall of orbit                     |

**Figure 13.1** Label the anterior bones and features of the skull. (If the line lacks the word *bone*, label the particular feature of that bone.)



**Figure 13.2** Label the lateral bones and features of the skull.



# VERTEBRAL COLUMN AND THORACIC CAGE

**PART A**

Complete the following statements:

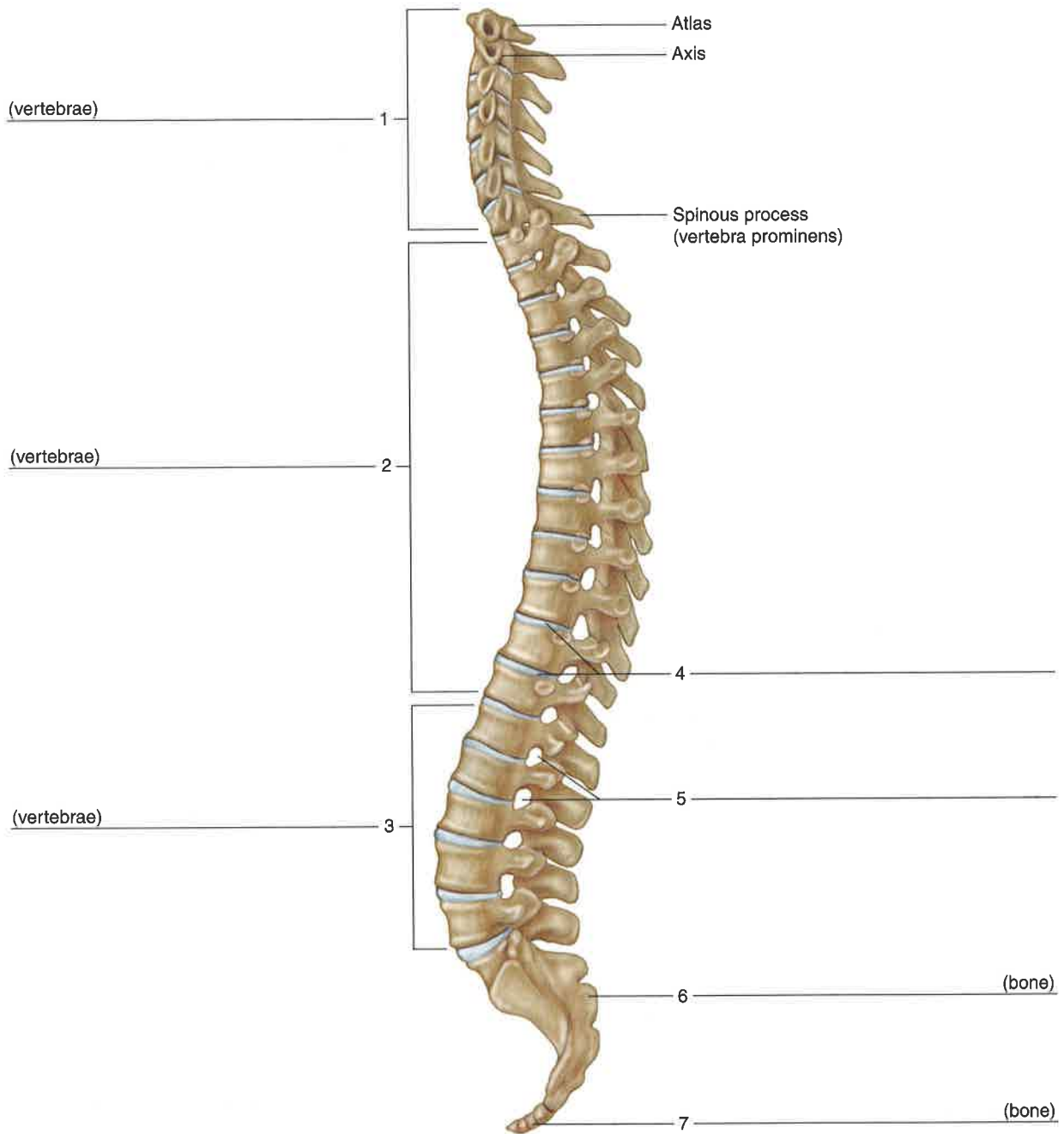
1. The vertebral column encloses and protects the \_\_\_\_\_.
2. The \_\_\_\_\_ of the vertebrae support the weight of the head and trunk.
3. The \_\_\_\_\_ separate adjacent vertebrae.
4. The pedicles, laminae, and spinous process of a vertebra form the \_\_\_\_\_.
5. The intervertebral foramina provide passageways for \_\_\_\_\_.
6. Transverse foramina of cervical vertebrae serve as passageways for \_\_\_\_\_ leading to the brain.
7. The first vertebra is also called the \_\_\_\_\_.
8. When the head is moved from side to side, the first vertebra pivots around the \_\_\_\_\_ of the second vertebra.
9. The \_\_\_\_\_ vertebrae have the largest and strongest bodies.
10. The number of vertebrae that fuse to form the sacrum is \_\_\_\_\_.
11. An opening called the \_\_\_\_\_ exists at the tip of the sacral canal.

**PART B**

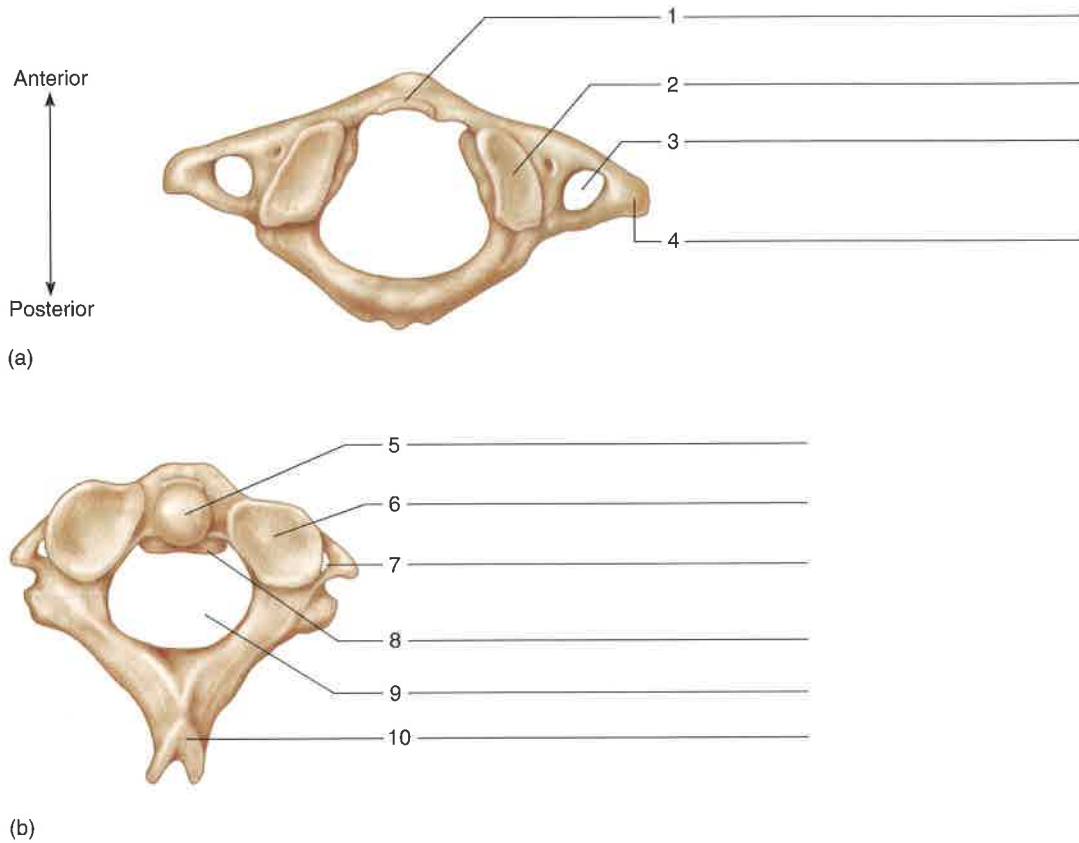
Based on your observations, compare typical cervical, thoracic, and lumbar vertebrae in relation to the characteristics indicated in the table.

Vertebra	Number	Size	Body	Spinous Process	Transverse Foramina
Cervical					
Thoracic					
Lumbar					

**Figure 14.1** Label the bones and features of the vertebral column.



**Figure 14.2** Label the superior features of (a) the atlas and (b) the axis.



5. Examine the sacrum and coccyx. Locate the following features:

**sacrum**

- superior articular process
- dorsal sacral foramen
- pelvic sacral foramen
- sacral canal
- tubercles
- sacral hiatus

**coccyx**

6. Complete Parts A and B of Laboratory Report 14.

**PROCEDURE B—THE THORACIC CAGE**

1. Review the section entitled “Thoracic Cage” in chapter 7 of the textbook.
2. As a review activity, label figure 14.5.

3. Examine the thoracic cage of the human skeleton and locate the following bones and features:

**rib**

- head
- tubercle
- facets
- true ribs
- false ribs
- floating ribs

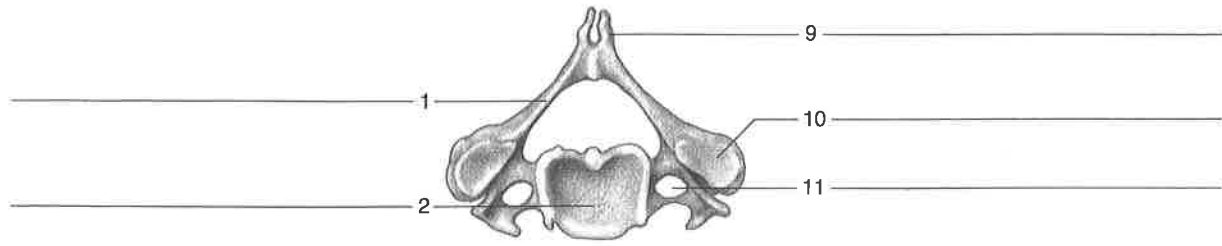
**costal cartilages**

**sternum**

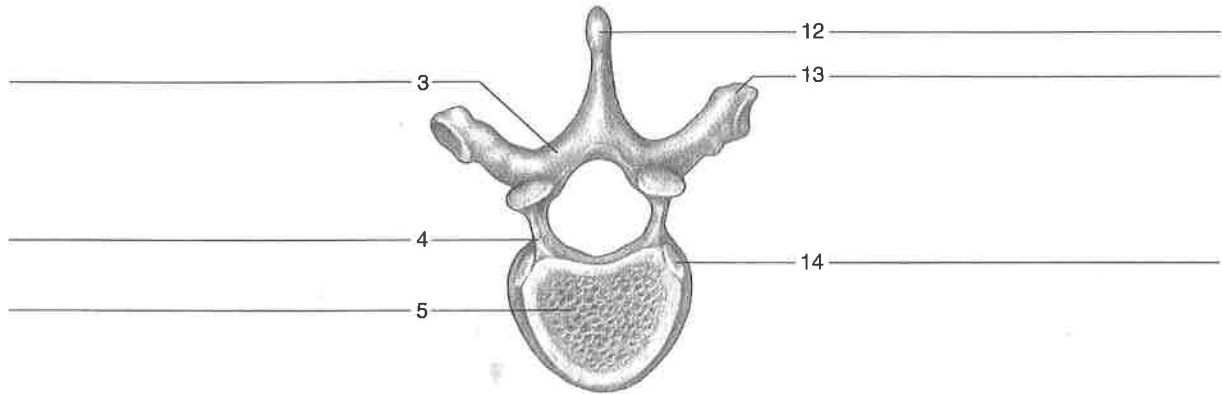
- manubrium
- body
- xiphoid process

4. Complete Parts C and D of the laboratory report.

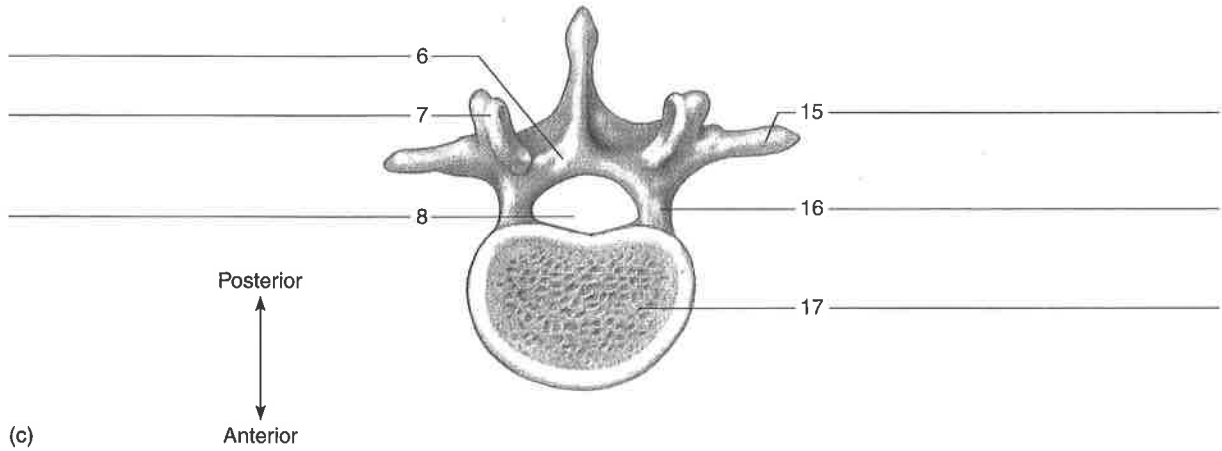
**Figure 14.3** Label the superior features of the (a) cervical, (b) thoracic, and (c) lumbar vertebrae.



(a)



(b)

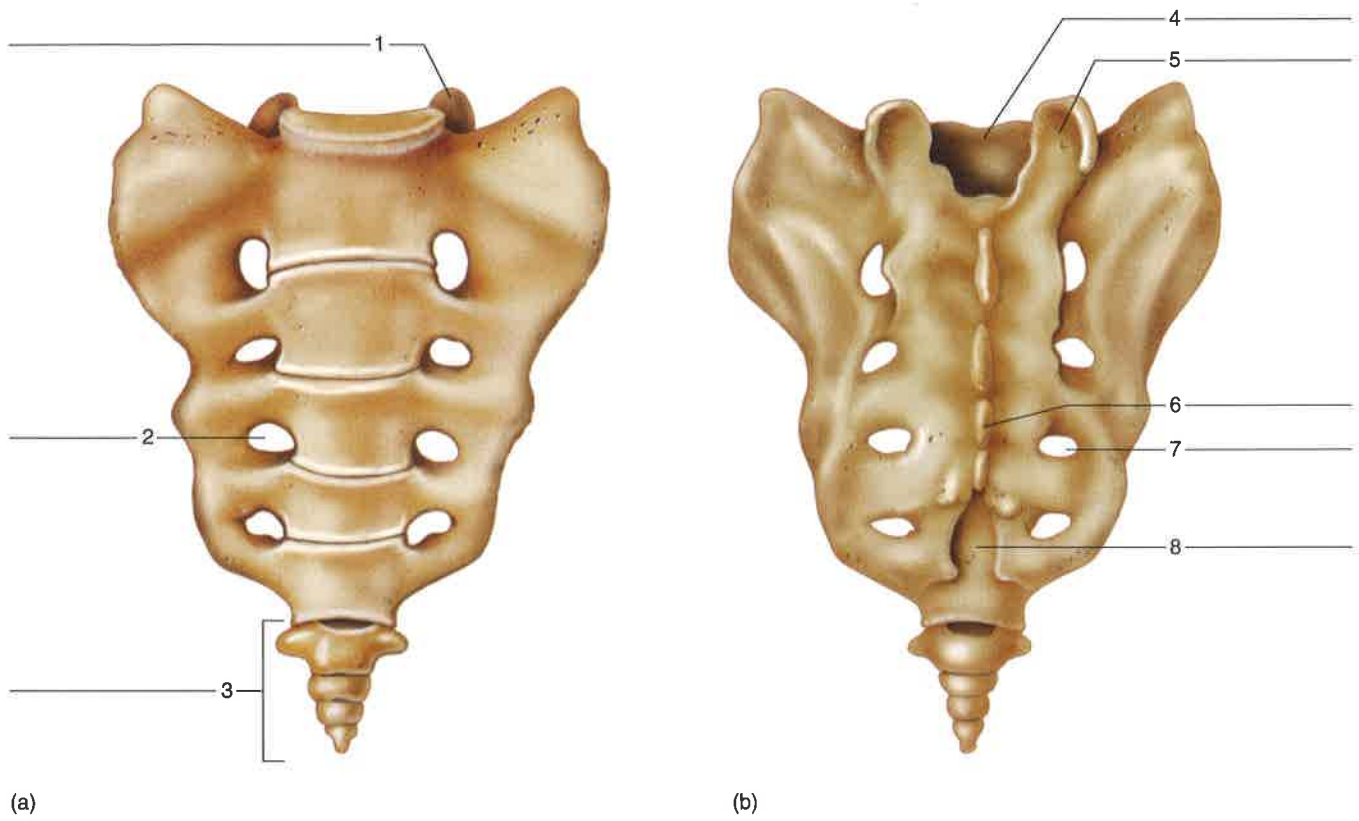


(c)

**Web Quest**

What are the functions of individual bones and features? Search these and review the anatomy of the skeleton at [www.mhhe.com/shieress8](http://www.mhhe.com/shieress8)

**Figure 14.4** Label the coccyx and the features of the sacrum: (a) anterior view; (b) posterior view.



**Figure 14.5** Label the bones and features of the thoracic cage.

