

PECTORAL GIRDLE AND UPPER LIMB

PART A

Complete the following statements:

1. The pectoral girdle is an incomplete ring because it is open in the back between the _____.
2. The medial ends of the clavicles articulate with the _____ of the sternum.
3. The lateral ends of the clavicles articulate with the _____ of the scapula.
4. The _____ divides the posterior side of the scapula into unequal portions.
5. The tip of the shoulder is due to the _____ of the scapula.
6. At the lateral end of the scapula, the _____ curves anteriorly and inferiorly from the clavicle.
7. The glenoid cavity of the scapula articulates with the _____ of the humerus.

PART B

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

Column A	Column B
a. Carpals	_____ 1. Capitate
b. Humerus	_____ 2. Coronoid fossa
c. Metacarpals	_____ 3. Deltoid tuberosity
d. Phalanges	_____ 4. Greater tubercle
e. Radius	_____ 5. Intertubercular groove
f. Ulna	_____ 6. Lunate
	_____ 7. Olecranon fossa
	_____ 8. Five palmar bones
	_____ 9. Radial tuberosity
	_____ 10. Trapezium
	_____ 11. Triquetrum (triangular)
	_____ 12. Trochlear notch
	_____ 13. Fourteen bones in digits

Figure 15.1 Label the bones and features of the shoulder and upper limb (anterior view).

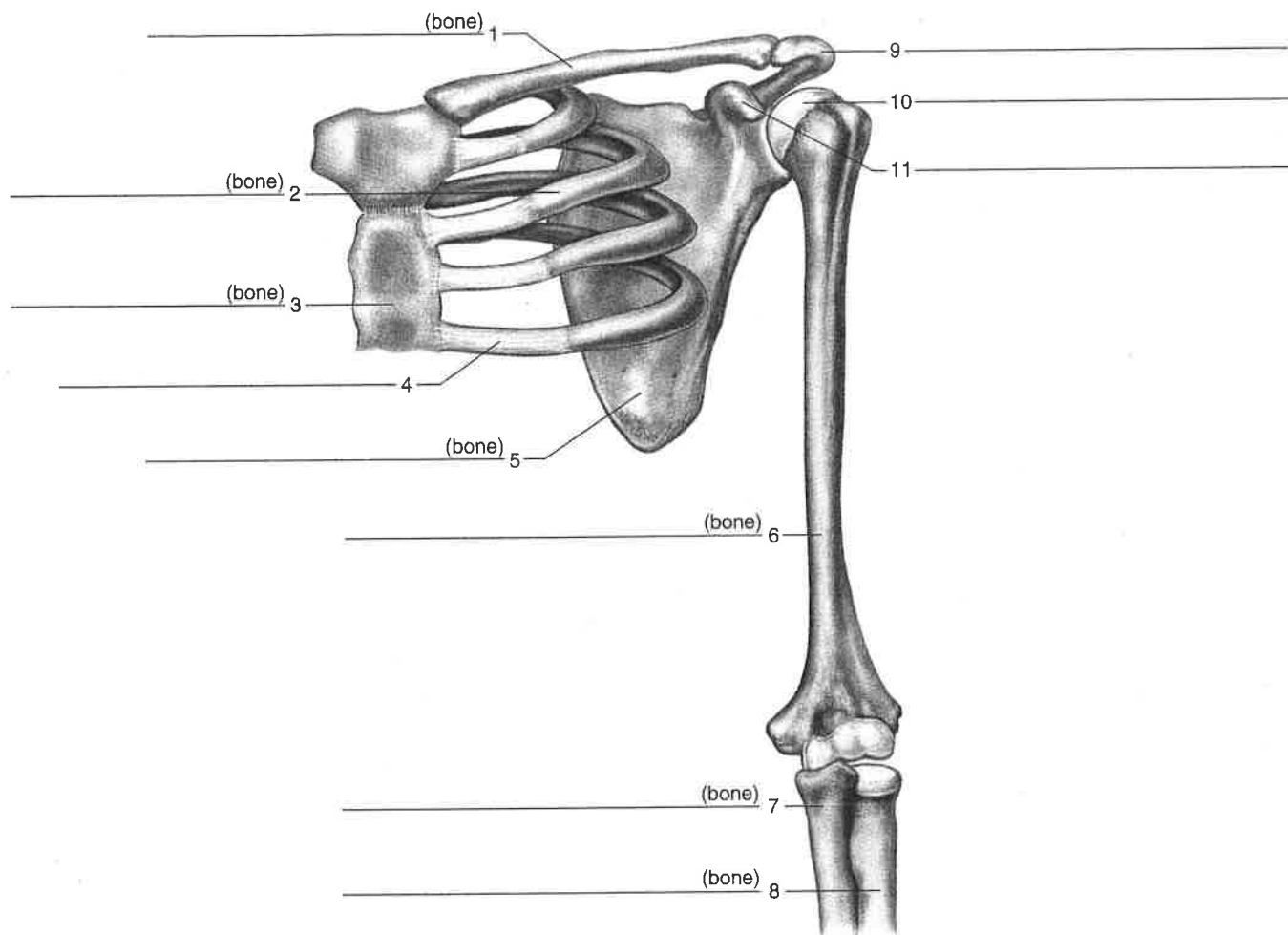
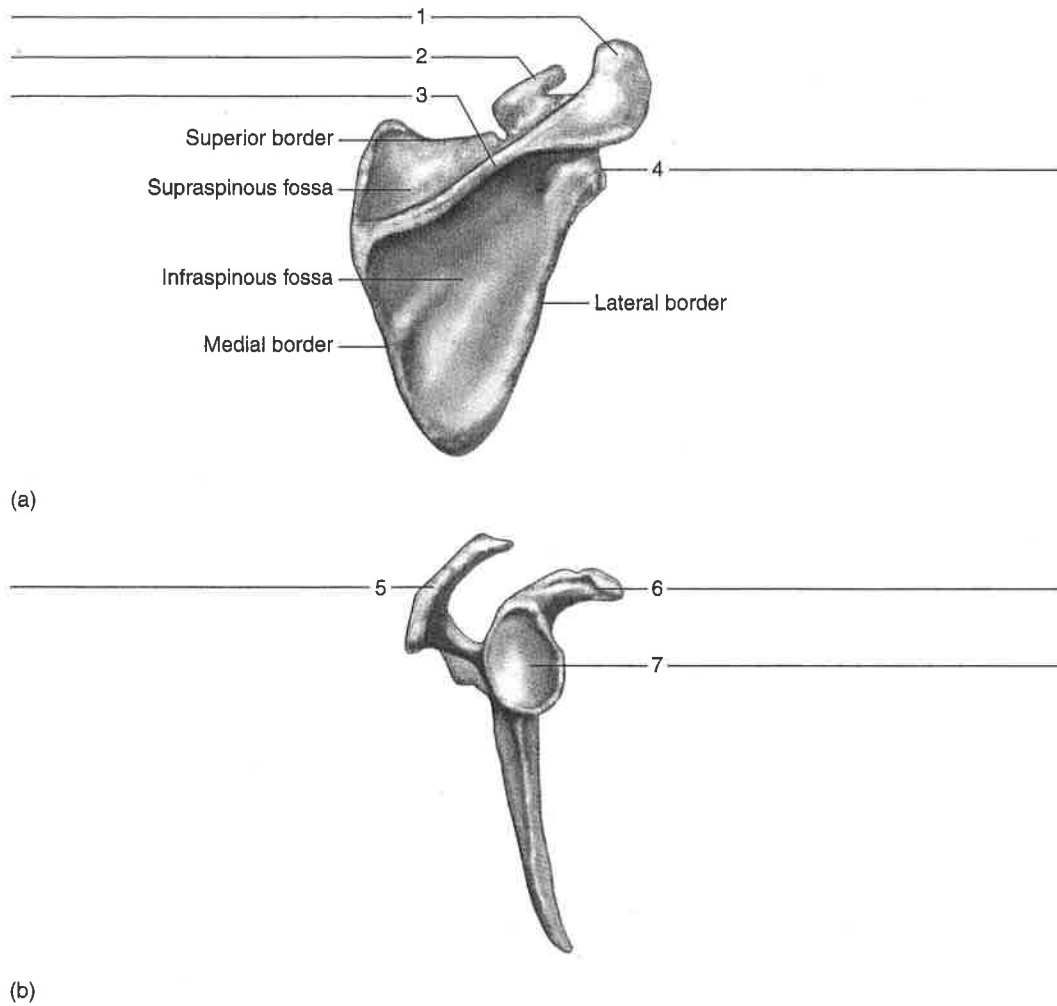


Figure 15.2 Label (a) the posterior surface of the right scapula and (b) the lateral aspect of the right scapula.



PROCEDURE B—THE UPPER LIMB

1. Review the section entitled "Upper Limb" in chapter 7 of the textbook.
2. As a review activity, label figures 15.3, 15.4, and 15.5.
3. Examine the following bones and features of the upper limb:

humerus

- head
- greater tubercle
- lesser tubercle
- intertubercular groove
- anatomical neck
- surgical neck
- deltoid tuberosity
- capitulum

- trochlea
- medial epicondyle
- lateral epicondyle
- coronoid fossa
- olecranon fossa

radius

- head
- radial tuberosity
- styloid process

ulna

- trochlear notch (semilunar notch)
- olecranon process
- coronoid process
- styloid process
- head

Figure 15.3 Label the (a) posterior surface and (b) anterior surface of the left humerus.

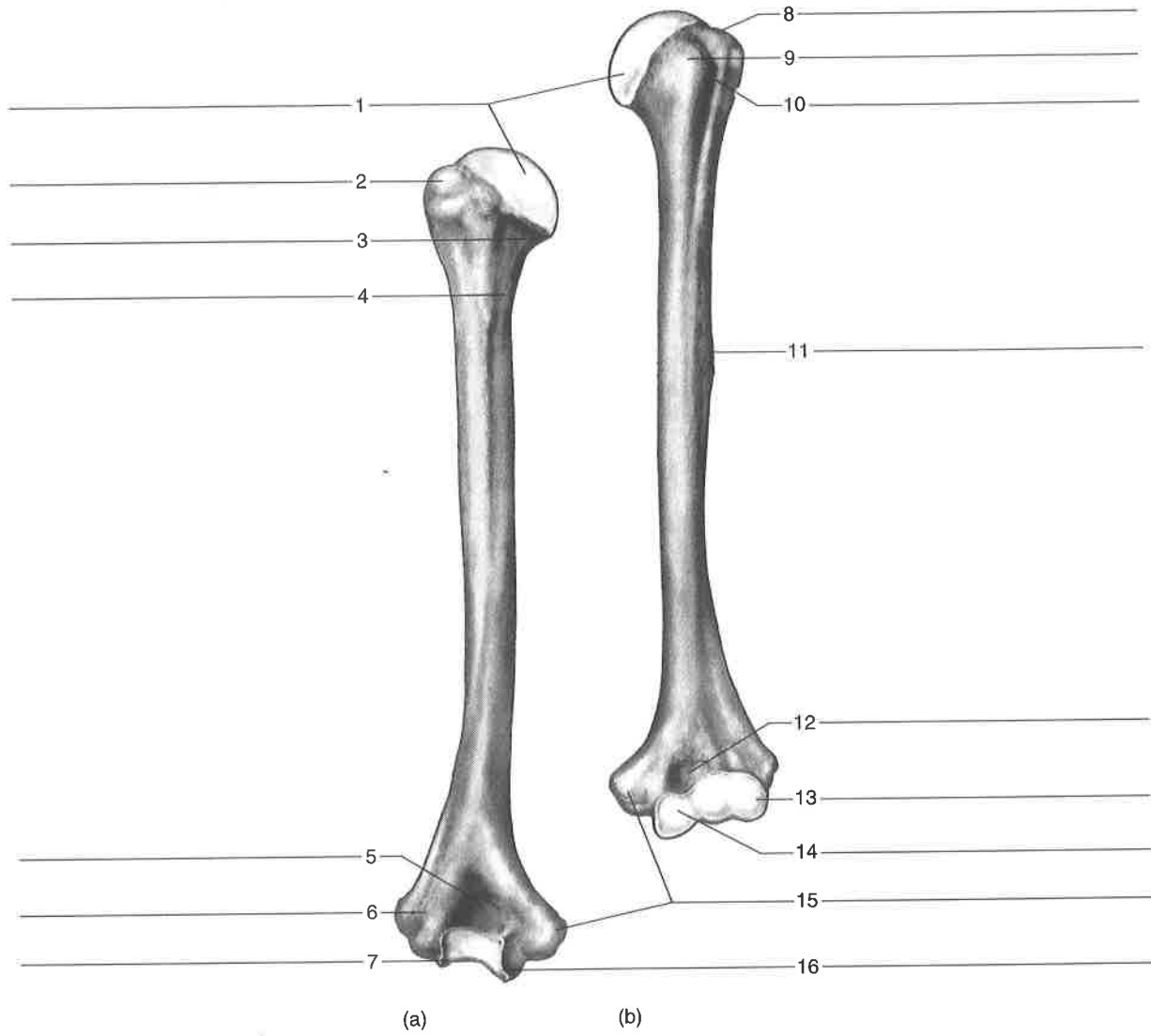


Figure 15.4 Label the major anterior features of the right radius and ulna.

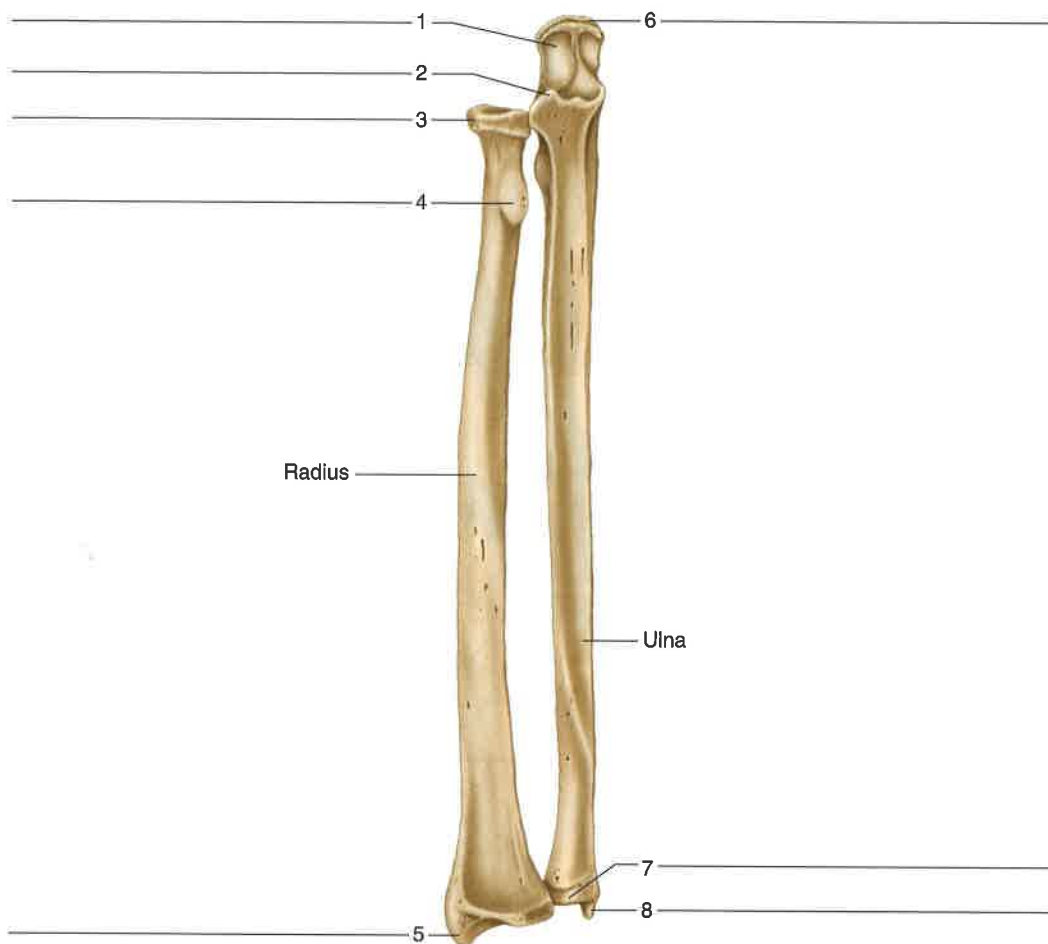
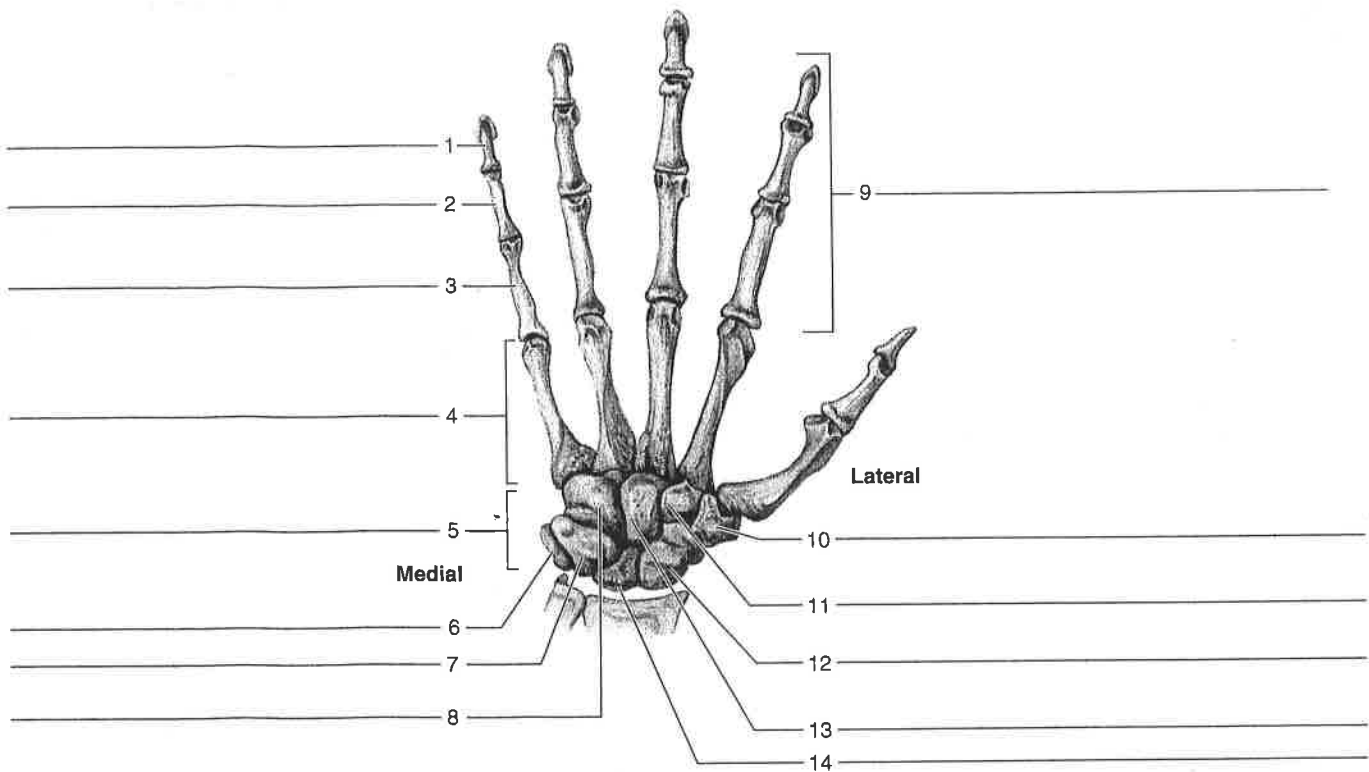


Figure 15.5 Label the bones and groups of bones in this posterior view of the left hand.



carpal bones

proximal row (listed lateral to medial)

- scaphoid
- lunate
- triquetrum
- pisiform

distal row (listed medial to lateral)

- hamate
- capitate
- trapezoid
- trapezium

metacarpal bones

phalanges

- proximal phalanx
- middle phalanx
- distal phalanx

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

OPTIONAL ACTIVITY

Use different colored pencils to distinguish the individual bones in figure 15.5.

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

The following mnemonic device will help you learn the eight carpals:

**So Long Top Part
Here Comes The Thumb**

The first letter of each word corresponds to the first letter of a carpal. Notice that this device arranges the carpals in order for the proximal, transverse row of four bones from lateral to medial, followed by the distal, transverse row from medial to lateral, which ends nearest the thumb. This arrangement assumes the anatomical position of the hand.

MUSCLES OF THE CHEST, SHOULDER, AND UPPER LIMB

PART A

Match the muscles in column A with the actions in column B. Place the letter of your choice in the space provided.

Column A	Column B
a. Brachialis	_____ 1. Abducts arm
b. Coracobrachialis	_____ 2. Pulls arm forward and across chest
c. Deltoid	_____ 3. Flexes and adducts hand at the wrist
d. Extensor carpi ulnaris	_____ 4. Raises and adducts scapula
e. Flexor carpi ulnaris	_____ 5. Rotates forearm medially
f. Flexor digitorum profundus	_____ 6. Raises ribs in forceful inhalation or pulls scapula forward and downward
g. Infraspinatus	_____ 7. Rotates forearm laterally
h. Pectoralis major	_____ 8. Used to thrust shoulder anteriorly, as when pushing something
i. Pectoralis minor	_____ 9. Flexes the forearm at the elbow
j. Pronator teres	_____ 10. Flexes and adducts arm at the shoulder along with pectoralis major
k. Rhomboideus major	_____ 11. Extends the forearm at the elbow
l. Serratus anterior	_____ 12. Extends, adducts, and rotates arm medially
m. Supinator	_____ 13. Extends and adducts hand at the wrist
n. Teres major	_____ 14. Rotates arm laterally
o. Triceps brachii	_____ 15. Flexes distal joints of fingers 2-5