

# PELVIC GIRDLE AND LOWER LIMB

## PART A

Complete the following statements:

1. The pelvic girdle consists of two \_\_\_\_\_.
2. The head of the femur articulates with the \_\_\_\_\_ of the coxa.
3. The \_\_\_\_\_ is the largest portion of the coxa.
4. The pubic bones come together anteriorly to form the joint called the \_\_\_\_\_.
5. The \_\_\_\_\_ is the portion of the ilium that causes the prominence of the hip.
6. When a person sits, the \_\_\_\_\_ of the ischium supports the weight of the body.
7. The angle formed by the pubic bones below the symphysis pubis is called the \_\_\_\_\_.
8. \_\_\_\_\_ is the largest foramen in the skeleton.
9. The ilium joins the sacrum at the \_\_\_\_\_ joint.

## PART B

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

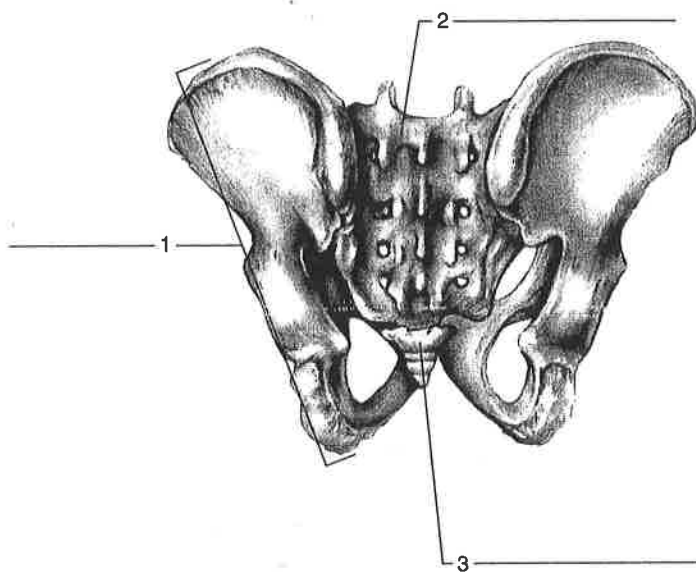
**Column A**

- a. Femur
- b. Fibula
- c. Metatarsals
- d. Patella
- e. Phalanges
- f. Tarsals
- g. Tibia

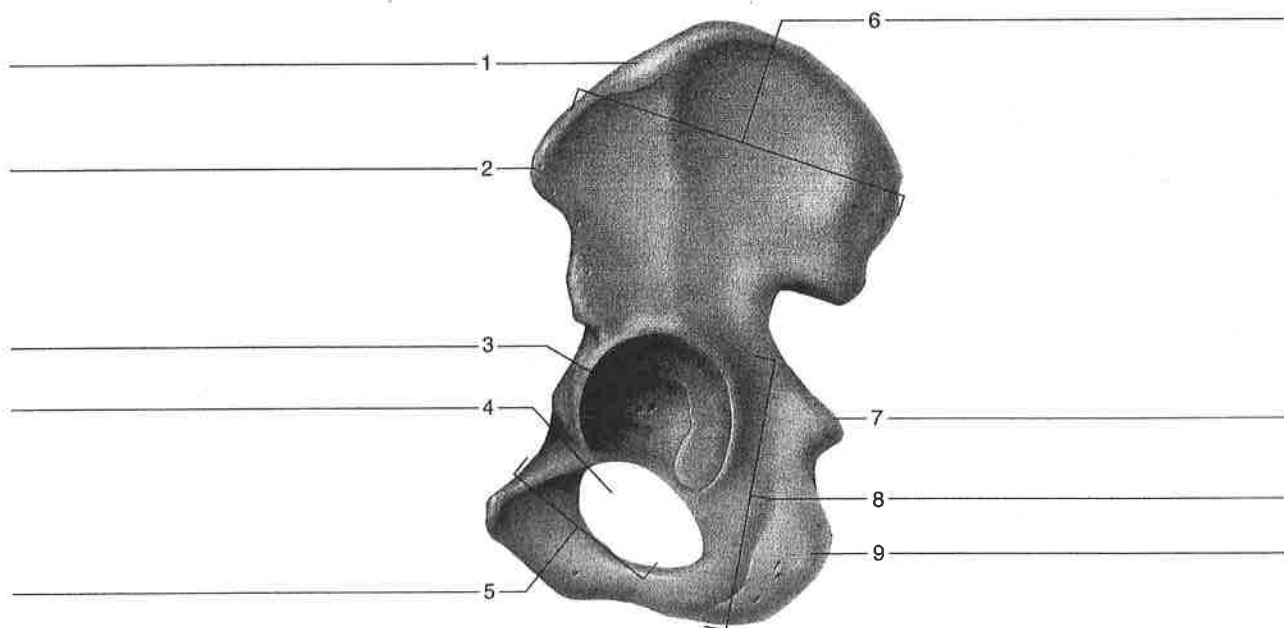
**Column B**

- \_\_\_\_\_ 1. Middle phalanx
- \_\_\_\_\_ 2. Lesser trochanter
- \_\_\_\_\_ 3. Medial malleolus
- \_\_\_\_\_ 4. Fovea capitis
- \_\_\_\_\_ 5. Calcaneus
- \_\_\_\_\_ 6. Lateral cuneiform
- \_\_\_\_\_ 7. Tibial tuberosity
- \_\_\_\_\_ 8. Talus
- \_\_\_\_\_ 9. Cuboid
- \_\_\_\_\_ 10. Lateral malleolus
- \_\_\_\_\_ 11. Located in a tendon over the knee
- \_\_\_\_\_ 12. Five bones that form the instep

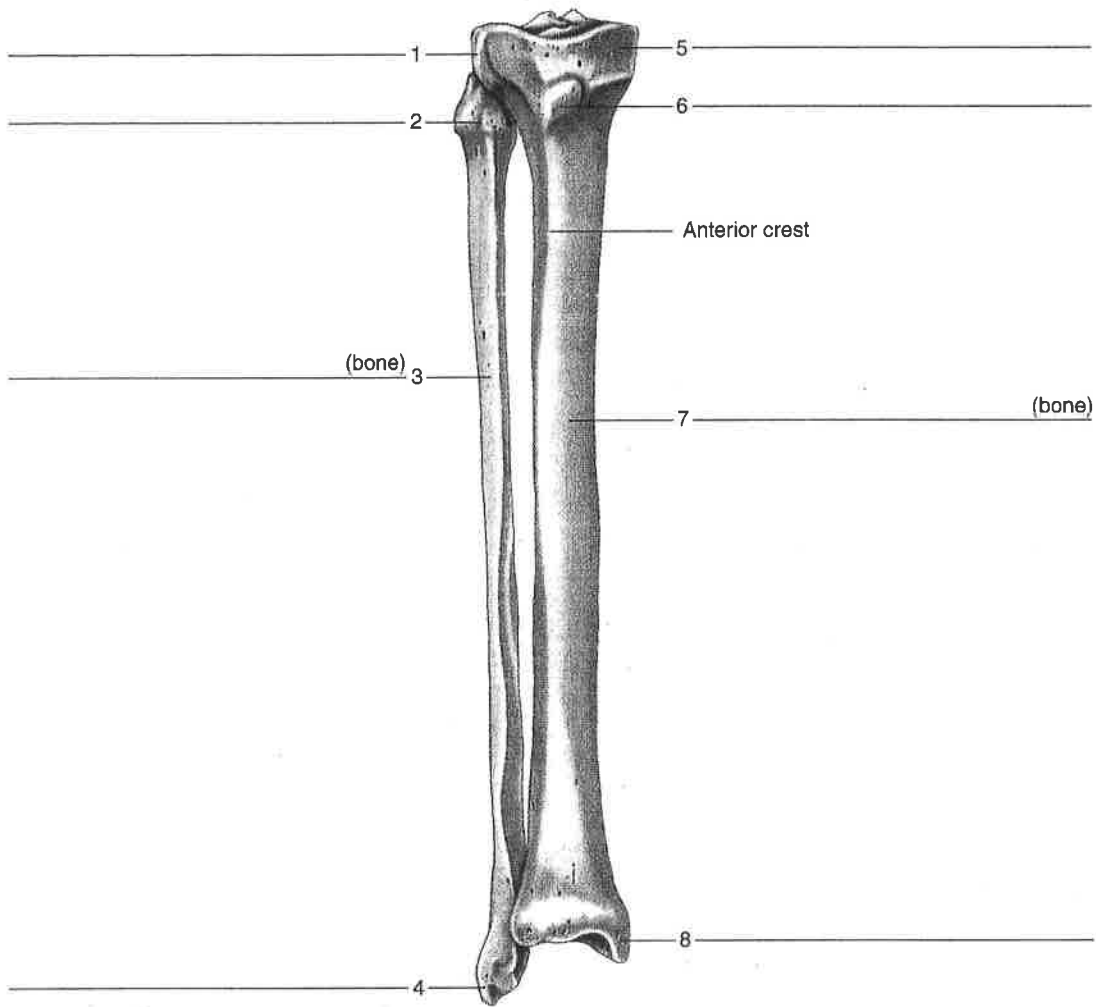
**Figure 16.1** Label the bones of the pelvis (posterior view).



**Figure 16.2** Label the lateral features of the left coxa.



**Figure 16.4** Label the bones and features of the right tibia and fibula in this anterior view.



tibial tuberosity  
 anterior crest  
 medial malleolus

**fibula**

head  
 lateral malleolus

**tarsal bones**

talus  
 calcaneus  
 navicular

cuboid  
 lateral cuneiform  
 intermediate cuneiform  
 medial cuneiform

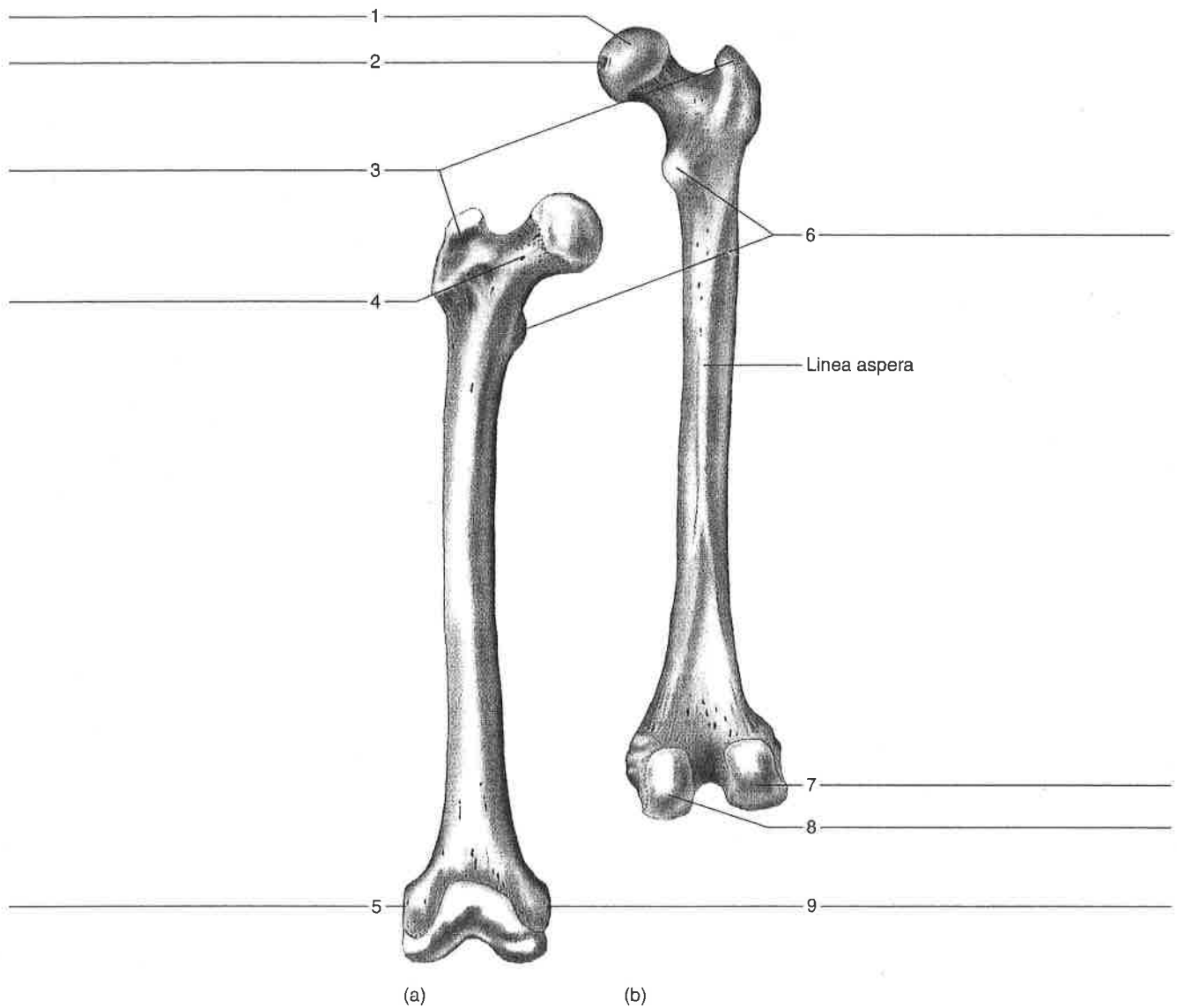
**metatarsal bones**

**phalanges**

proximal phalanx  
 middle phalanx  
 distal phalanx

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

**Figure 16.3** Label the features of (a) the anterior surface and (b) the posterior surface of the right femur.



**PROCEDURE B—THE LOWER LIMB**

1. Review the section entitled “Lower Limb” in chapter 7 of the textbook.
2. As a review activity, label figures 16.3, 16.4, and 16.5.
3. Examine the bones of the lower limb and locate each of the following:

**femur**

- head
- fovea capitis
- neck
- greater trochanter

lesser trochanter

linea aspera

lateral condyle

medial condyle

lateral epicondyle

medial epicondyle

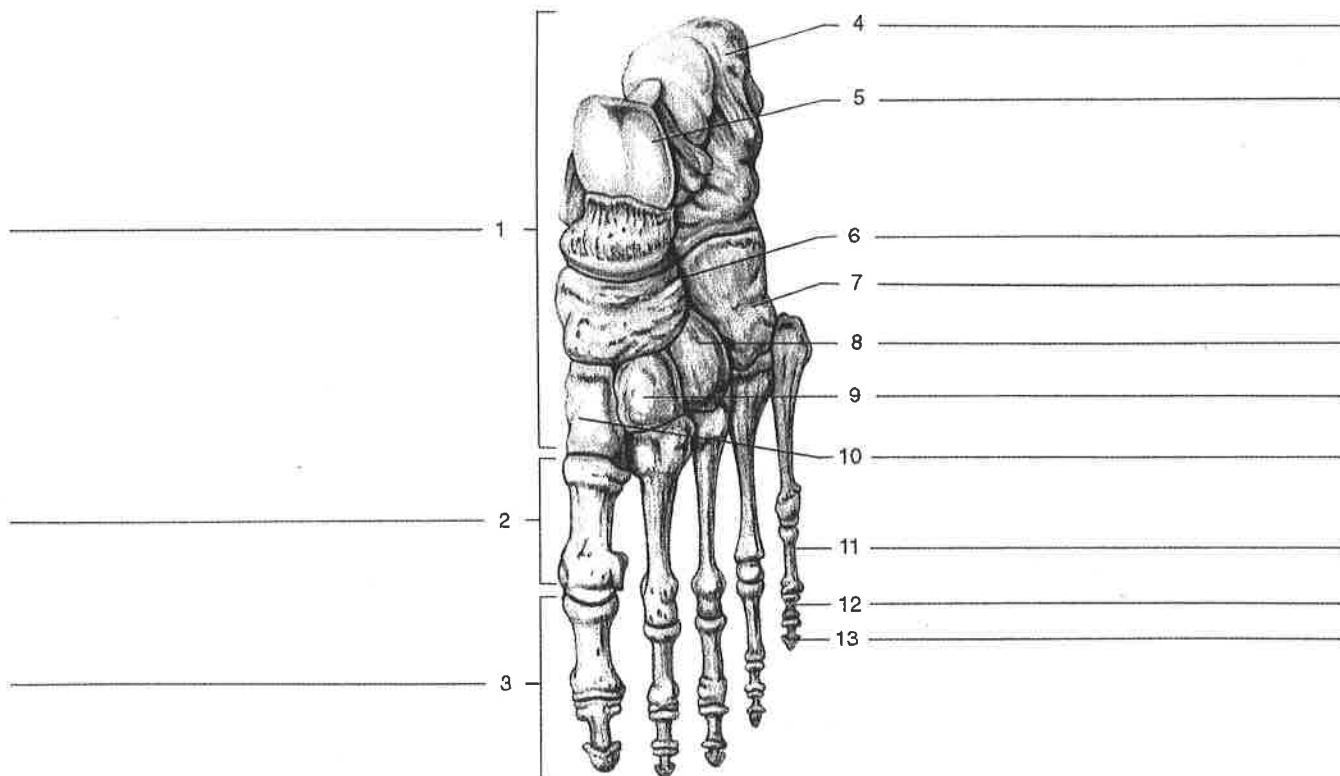
**patella**

**tibia**

medial condyle

lateral condyle

**Figure 16.5** Label the bones in this superior view of the left foot.



**OPTIONAL ACTIVITY**

Use different colored pencils to distinguish the individual bones in figure 16:5.



**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](http://www.mhhe.com/shieress8)

# MUSCLES OF THE HIP AND LOWER 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. Biceps femoris	_____	1. Adducts thigh
b. Gluteus medius	_____	2. Plantar flexion and eversion of foot
c. Gracilis	_____	3. Flexes thigh at the hip
d. Peroneus (fibularis) longus	_____	4. Abducts thigh and rotates it laterally
e. Psoas major and iliacus	_____	5. Abducts thigh and rotates it medially
f. Quadriceps femoris group	_____	6. Flexes the leg at the knee
g. Sartorius	_____	7. Extends the leg at the knee
h. Tibialis anterior	_____	8. Dorsiflexion and inversion of foot

**PART B**

Name the muscle indicated by the following combinations of origin and insertion.

Origin	Insertion	Muscle
1. Lateral surface of ilium	Greater trochanter of femur	_____
2. Ischial tuberosity	Posterior surface of femur	_____
3. Anterior superior iliac spine	Medial surface of tibia	_____
4. Lateral and medial condyles of femur	Posterior surface of calcaneus	_____
5. Anterior iliac crest	Fascia (iliotibial band) of the thigh	_____
6. Greater trochanter and posterior surface of femur	Patella to tibial tuberosity	_____
7. Ischial tuberosity	Medial surface of tibia	_____
8. Medial surface of femur	Patella to tibial tuberosity	_____
9. Posterior surface of tibia	Distal phalanges of four lateral toes	_____
10. Lateral condyle and lateral surface of tibia	Cuneiform and first metatarsal	_____