EXERCISE 10

REVIEW SHEET

The Appendicular Skeleton

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Bones of the Pectoral Girdle and Upper Limb

1. Match the bone names or markings in column B with the descriptions in column A. The items in column B may be used more than once.

Column A

g	1. raised area on lateral surface of humerus to which deltoid muscle attaches
i	2. arm bone
d, p	3. bones of the shoulder girdle
o, r	4. forearm bones
a	5. scapular feature to which the clavicle connects
p	6. shoulder girdle bone that does not articulate with the axial skeleton
d	7. shoulder girdle bone that acts as a brace and articulates with the axial skeleton
h	8. depression in the scapula that articulates with the humerus
e	9. process above the glenoid cavity that permits muscle attachment
l	10. posterior depression on the distal humerus
q	11. distal condyle of the humerus that articulates with the ulna
r	12. medial bone of forearm in anatomical position
b	13. rounded knob on the humerus; adjoins the radius
f	14. anterior depression, superior to the trochlea, that receives part of the ulna when the forearm is flexed
n	15. ulnar surface that articulates with the radial head
c	16. wrist bones
m	17. finger bones
k	18. heads of these bones form the knuckles
j	19. small bump often called the "funny bone"

Column B

a. acromion
b. capitulum
c. carpals
d. clavicle
e. coracoid process
f. coronoid fossa
g. deltoid tuberosity
h. glenoid cavity
i. humerus
j. medial epicondyle
k. metacarpals
l. olecranon fossa
m. phalanges
n. radial notch
o. radius
p. scapula
q. trochlea
r. ulna

2. How is the arm held clear of the top of the thoracic cage?

The clavicle juts out laterally and is used to keep the arm away from the thoracic cage

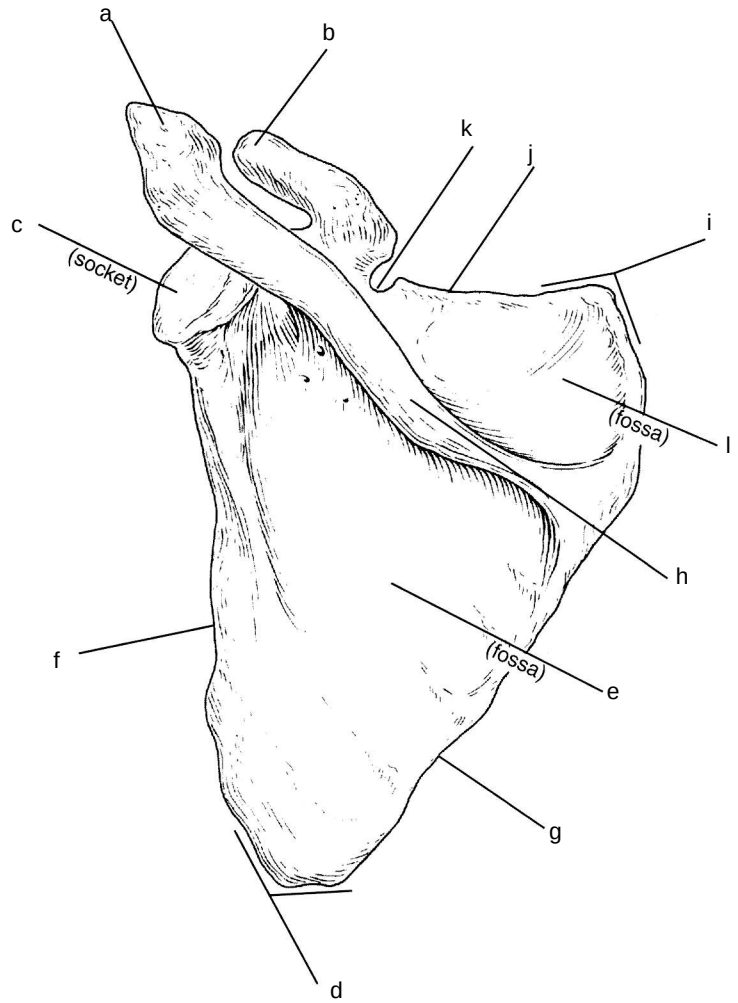
3. What is the total number of phalanges in the hand? 14/hand

4. What is the total number of carpals in the wrist? 8/wrist

Name the carpals (medial to lateral) in the proximal row. Scaphoid, Lunate, Triquetrum, Pisiform

In the distal row, they are (medial to lateral) Trapezium, Trapezoid, Capitate, Harnate

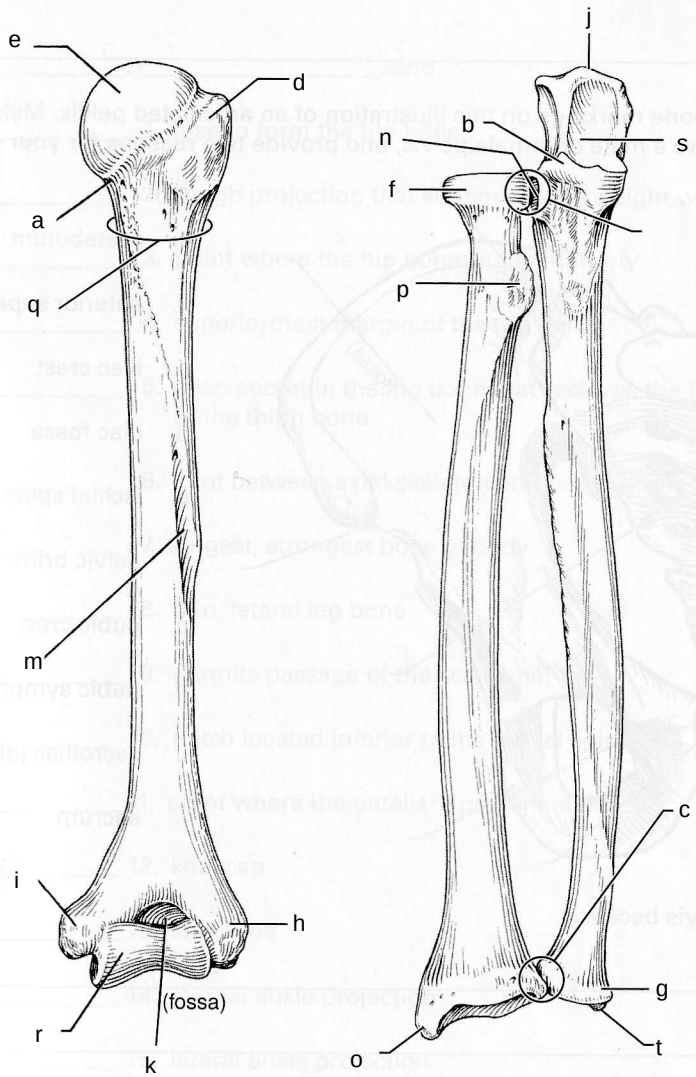
5. Using items from the list at the right, identify the anatomical landmarks and regions of the scapula.



Key:

a. acromion
b. coracoid process
c. glenoid cavity
d. inferior angle
e. infraspinous fossa
f. lateral border
g. medial border
h. spine
i. superior angle
j. superior border
k. suprascapular notch
l. supraspinous fossa

6. Match the terms in the key with the appropriate leader lines on the drawings of the humerus and the radius and ulna. Also decide whether the bones shown are right or left bones and whether the view shown is an anterior or a posterior view.



Key:

a. anatomical neck
b. coronoid process
c. distal radioulnar joint
d. greater tubercle
e. head of humerus
f. head of radius
g. head of ulna
h. lateral epicondyle
i. medial epicondyle
j. olecranon
k. olecranon fossa
l. proximal radioulnar joint
m. radial groove
n. radial notch
o. radial styloid process
p. radial tuberosity
q. surgical neck
r. trochlea
s. trochlear notch
t. ulnar styloid process

Circle the correct term for each pair in parentheses:

The humerus is a (right/left) bone in (an anterior/a posterior) view. The radius and ulna are (right/left) bones in (an anterior/a posterior) view.

Bones of the Pelvic Girdle and Lower Limb

7. Compare the pectoral and pelvic girdles by choosing appropriate descriptive terms from the key.

Key:
a. flexibility most important
b. massive
c. lightweight
d. insecure axial and limb attachments
e. secure axial and limb attachments
f. weight-bearing most important

Pectoral: c, a, d Pelvic: b, f, e

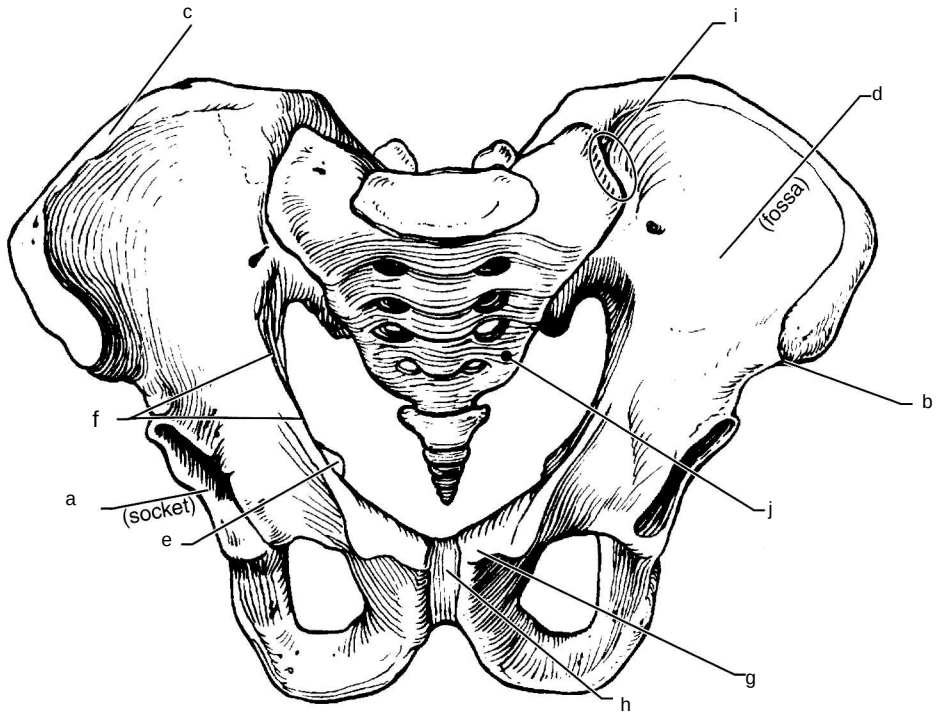
8. What organs are protected, at least in part, by the pelvic girdle? Lower part of the digestive tract, reproductive organs, and the bladder

9. Distinguish between the true pelvis and the false pelvis.

The false pelvis is the portion superior to the pelvic brim. it is bounded by the alae of the ilia laterally and the sacral promontory and lumbar vetebrae posteriorly.

True pelvis is the region inferior to the pelvic brim that is almost entiely surrounded by bone. The ilia, ischia, and pubic bones deinfe its limits laterally and anteriorly.

10. Use letters from the key to identify the bone markings on this illustration of an articulated pelvis. Make an educated guess as to whether the illustration shows a male or female pelvis, and provide two reasons for your decision.



Key:

a. acetabulum
b. anterior superior iliac spine
c. iliac crest
d. iliac fossa
e. ischial spine
f. pelvic brim
g. pubic crest
h. pubic symphysis
i. sacroiliac joint
j. sacrum

This is a male (female/male) pelvis because:

The angle is very acute at the pelvic arch. and the pelvic brim is close together.

11. Deduce why the pelvic bones of a four-legged animal such as the cat or pig are much less massive than those of the human.

Our pelvic bones have to bare our weight since we are bipeddle. Four-legged animals don't have that burden and so their pelvis do not have to be as massive

12. A person instinctively curls over his abdominal area in times of danger. Why?

To protect our internal organ and our provite parts.

13. For what anatomical reason do many women appear to be slightly knock-kneed?

Because women have wider pelvises, the angle of their hips turn their hips slightly inward

How might this anatomical arrangement contribute to knee injuries in female athletes?

it means injuries are more likely, because in some cases it actually causes the knees to touch.

14. What structural changes result in fallen arches?

Shin splits, stress fractures, inflammation of the fascia of the sole, and tendinitis

15. Match the bone names and markings in column B with the descriptions in column A. The items in column B may be used more than once.

Column A

i, k, and

s 1. fuse to form the hip bone

j 2. rough projection that supports body weight when sitting

r 3. point where the hip bones join anteriorly

h 4. superiormost margin of the hip bone

a 5. deep socket in the hip bone that receives the head of the thigh bone

t 6. joint between axial skeleton and pelvic girdle

c 7. longest, strongest bone in body

d 8. thin, lateral leg bone

m 9. permits passage of the sciatic nerve

g 10. notch located inferior to the ischial spine

x 11. point where the patellar ligament attaches

q 12. kneecap

w 13. shinbone

n 14. medial ankle projection

l 15. lateral ankle projection

b 16. largest tarsal bone

v 17. ankle bones

o 18. bones forming the instep of the foot

p 19. opening in hip bone formed by the pubic and ischial rami

f and e 20. sites of muscle attachment on the proximal femur

u 21. tarsal bone that "sits" on the calcaneus

w 22. weight-bearing bone of the leg

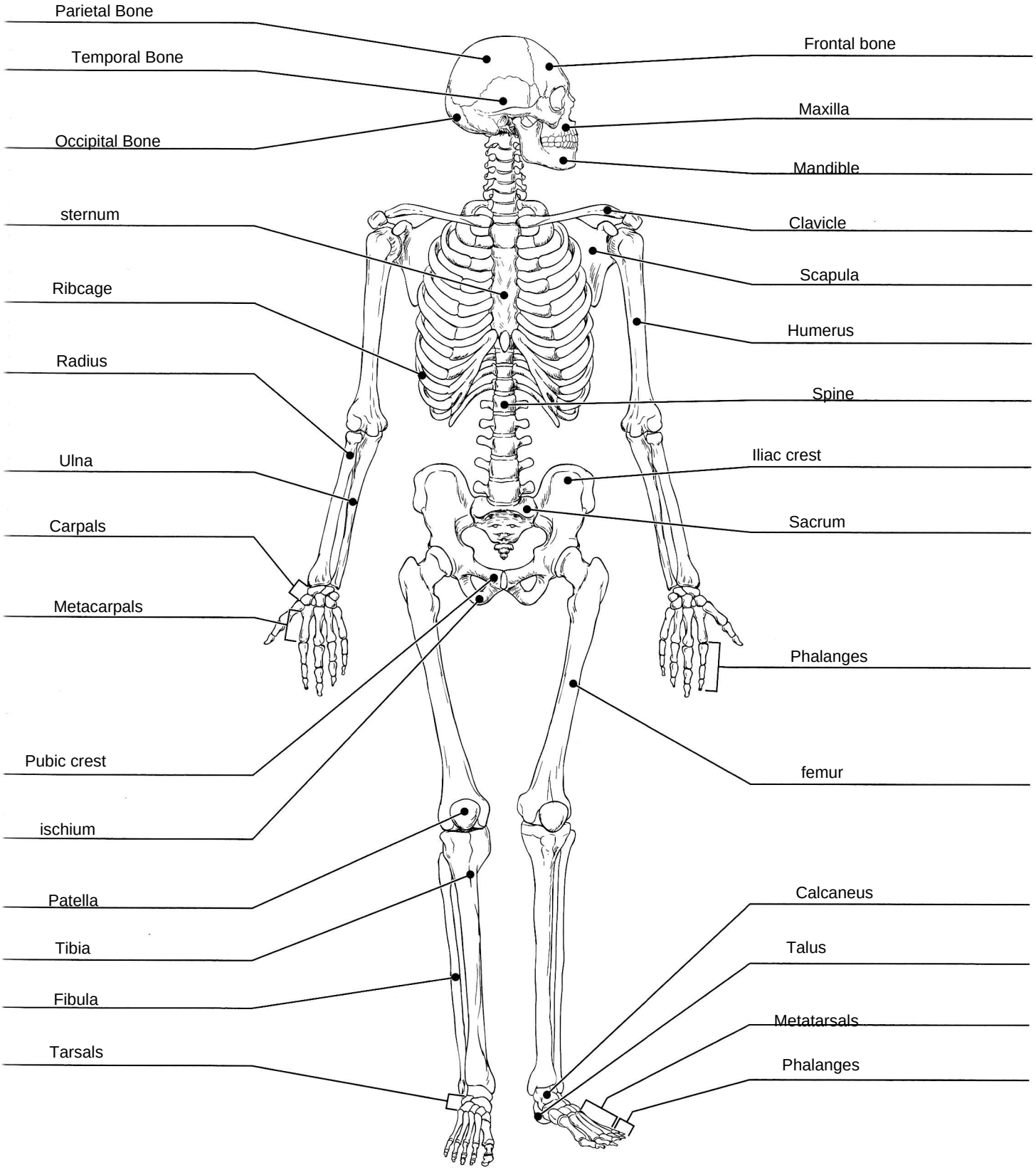
u 23. tarsal bone that articulates with the tibia

Column B

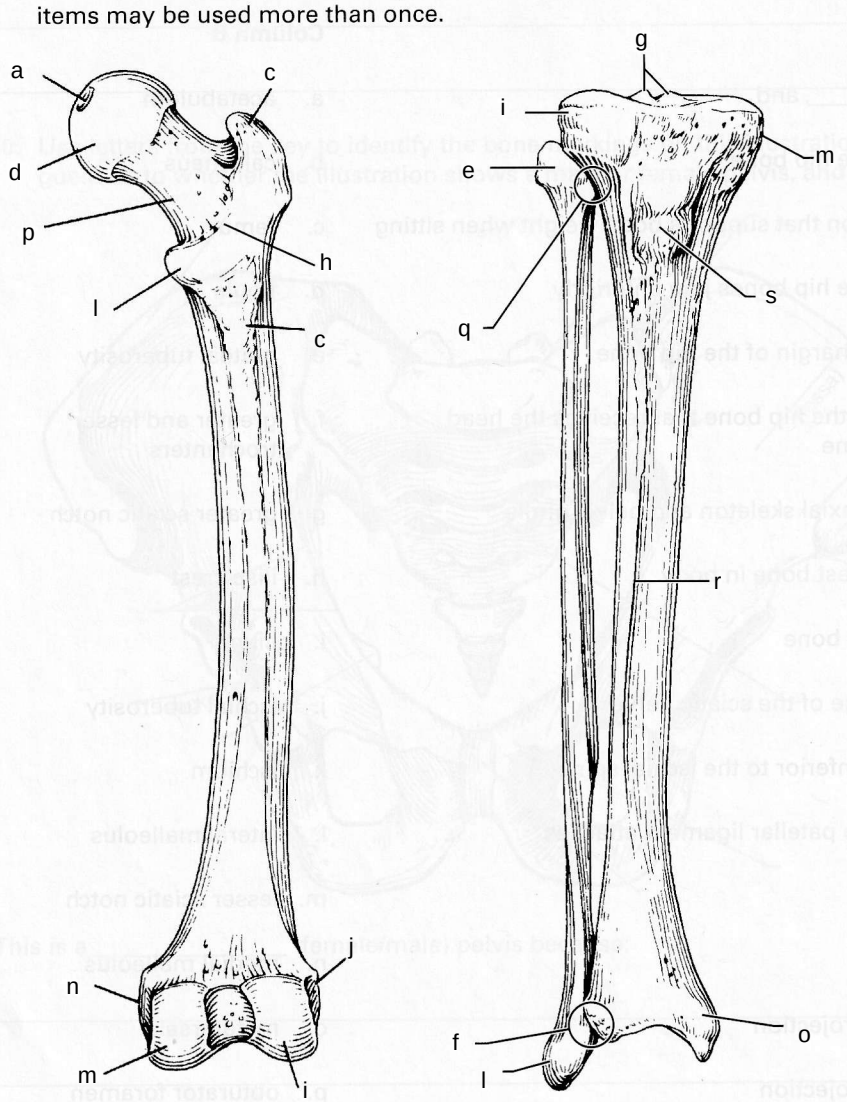
a. acetabulum
b. calcaneus
c. femur
d. fibula
e. gluteal tuberosity
f. greater and lesser trochanters
g. greater sciatic notch
h. iliac crest
i. ilium
j. ischial tuberosity
k. ischium
l. lateral malleolus
m. lesser sciatic notch
n. medial malleolus
o. metatarsals
p. obturator foramen
q. patella
r. pubic symphysis
s. pubis
t. sacroiliac joint
u. talus
v. tarsals
w. tibia
x. tibial tuberosity

Summary of Skeleton

17. Identify all indicated bones (or groups of bones) in the diagram of the articulated skeleton below.



16. Match the terms in the key with the appropriate leader lines on the drawings of the femur and the tibia and fibula. Also decide if these bones are right or left bones and whether the view shown is an anterior or a posterior view. Some items may be used more than once.



Key:

a. fovea capitis

b. gluteal tuberosity

c. greater trochanter

d. head of femur

e. head of fibula

f. inferior tibiofibular joint

g. intercondylar eminence

h. intertrochanteric crest

i. lateral condyle

j. lateral epicondyle

k. lateral malleolus

l. lesser trochanter

m. medial condyle

n. medial epicondyle

o. medial malleolus

p. neck of femur

q. superior tibiofibular joint

r. tibial anterior border

s. tibial tuberosity

Circle the correct term for each pair in parentheses:

The femur is a (right/left) bone in (an anterior/a posterior) view. The tibia and fibula are (right/left) bones in (an anterior/a posterior) view.