



# Anatomy Lab

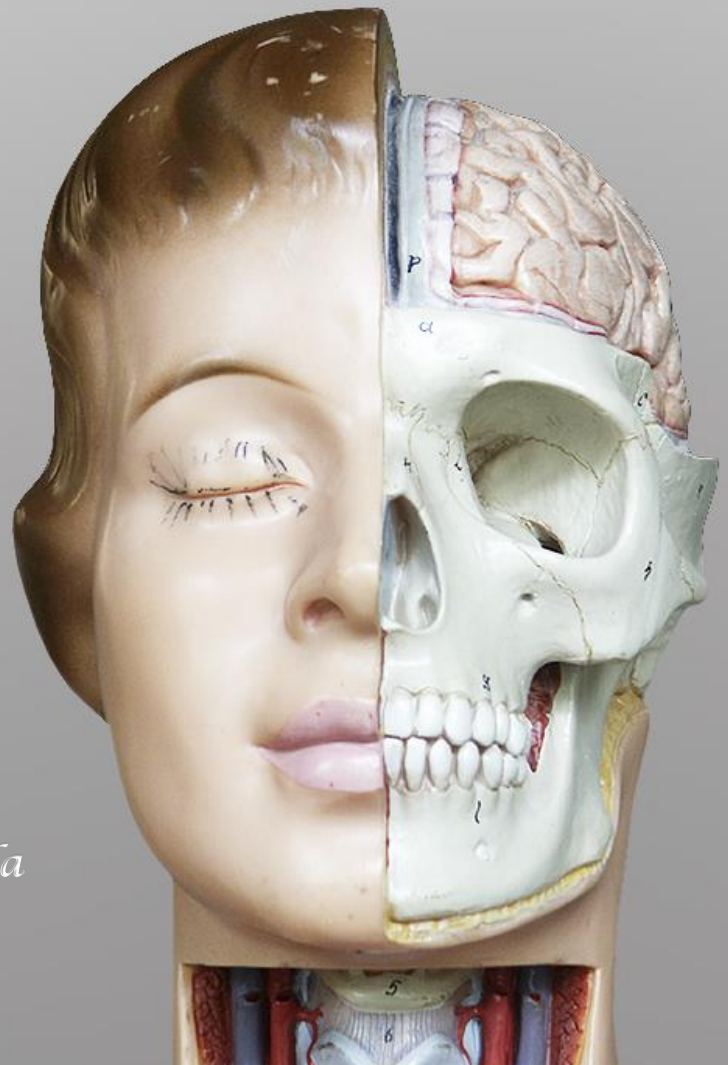
## 1<sup>st</sup> Year Self-directed Learning (SDL) Workbook

2023-2024

MCM

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المجموعة:



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## Exercise 1

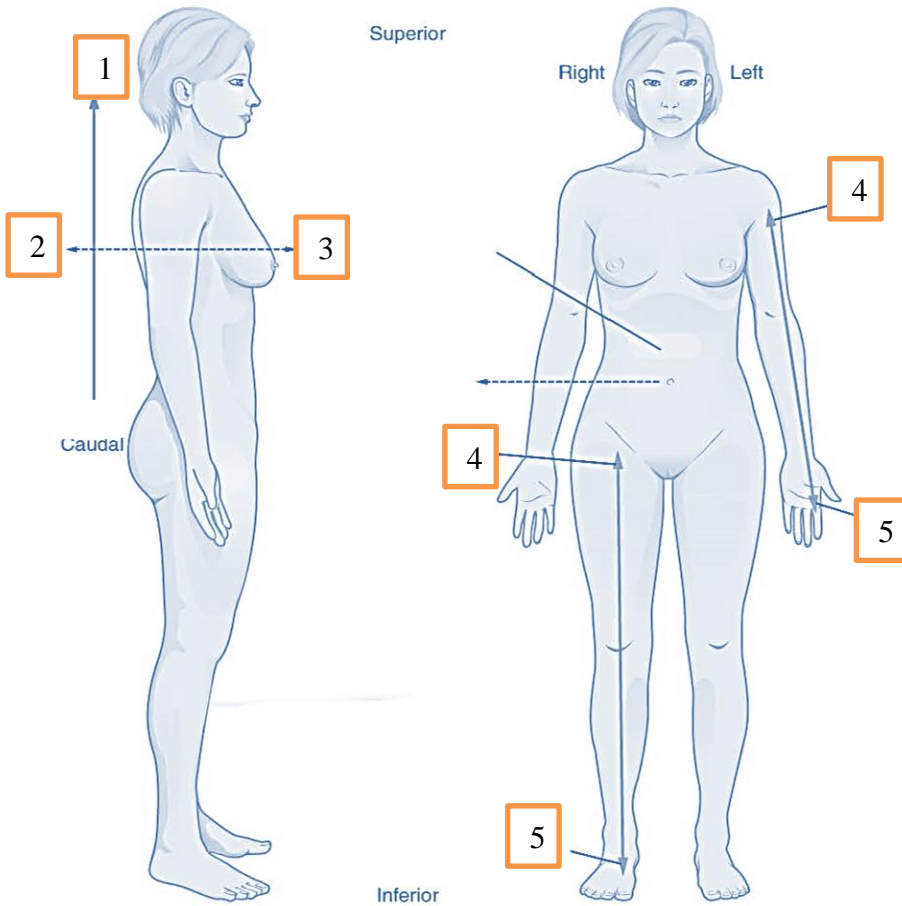
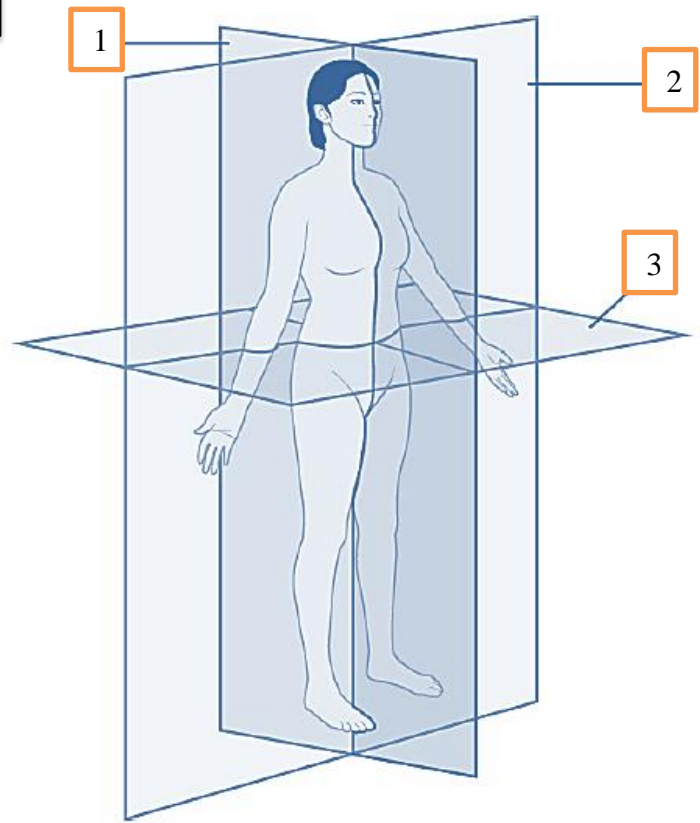
**1. Label the body planes and the terms of relation in the figures.**

**2. Determine which body plane is described by each of the following scenarios.**

- A. If the human body were split into left and right halves → .....
- B. If the human body were split into anterior and posterior parts → .....
- C. If the human body were split into superior and inferior parts → .....

**3. Fill in the blanks:**

- i. The mouth is \_\_\_\_\_ to the nose
- ii. The thigh is \_\_\_\_\_ to the leg
- iii. The index is \_\_\_\_\_ to the little finger
- iv. Bones lie \_\_\_\_\_ to muscles
- v. The thigh is \_\_\_\_\_ to the abdomen

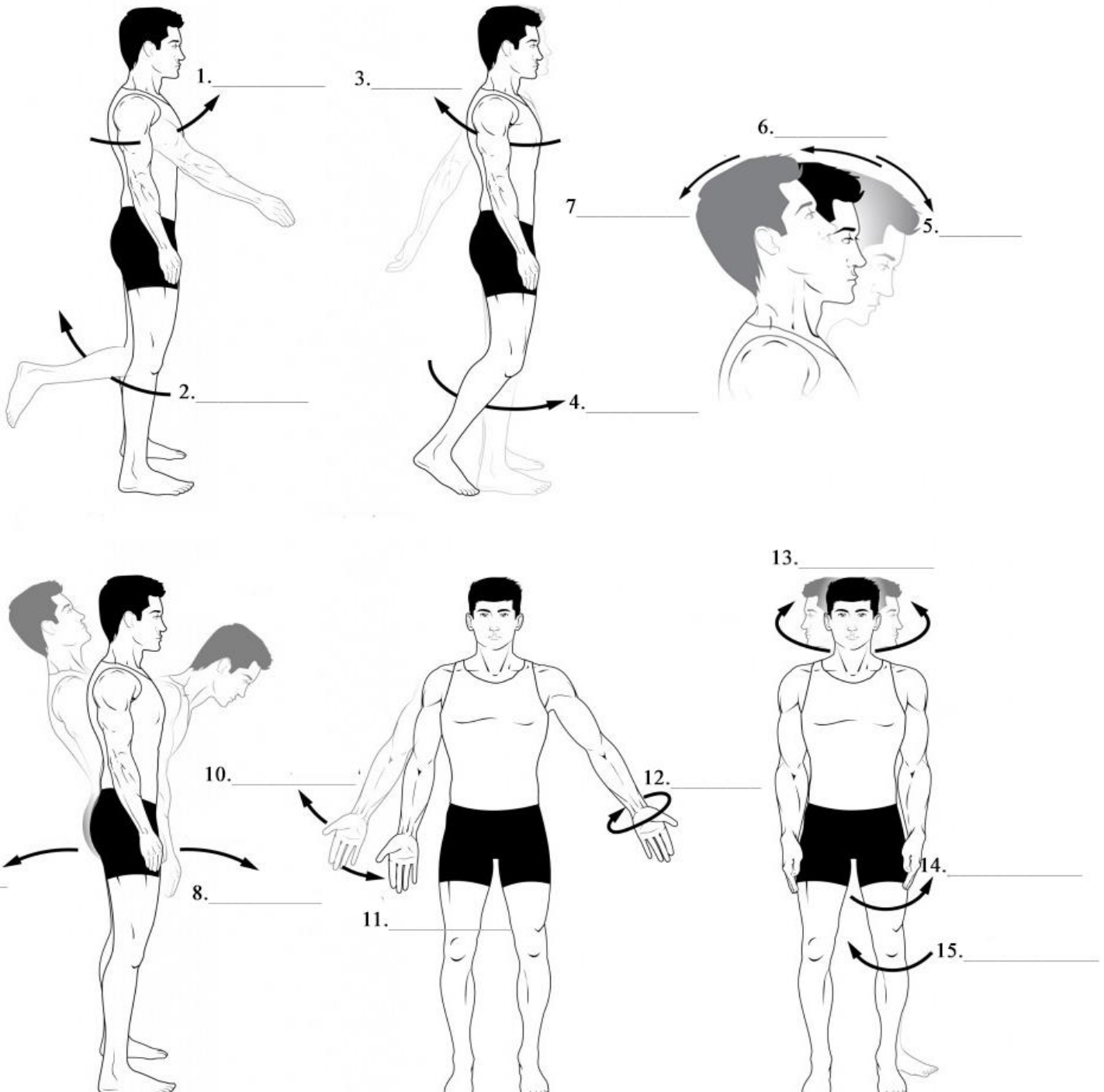


# 1

## Body planes & Terms of Relation

## Exercise 1

1. Label the movements in these figures.

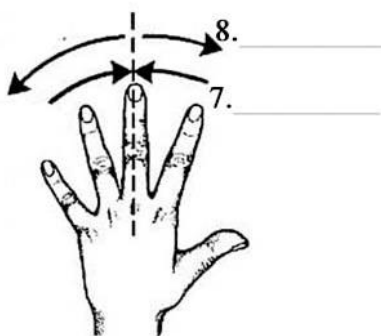
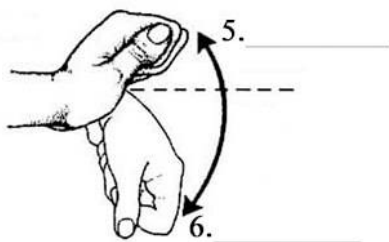
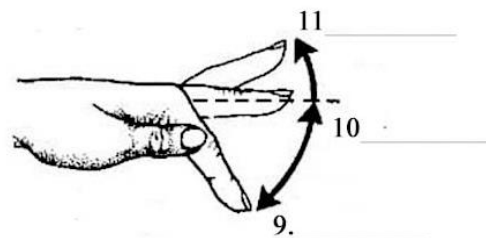
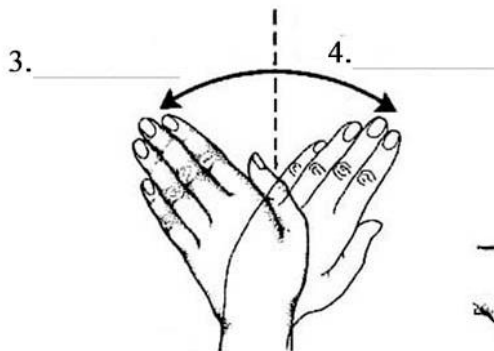
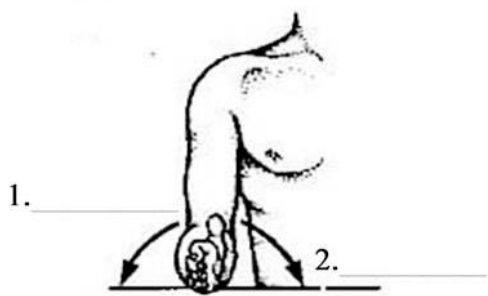


# 2

## Terms of Movement-a



1. Label the movements of the forearm, wrist & fingers in these figures.



2. Choose the most appropriate response for each of the following:

i. Which term refers to a movement that increases the angle of a joint?

- (A) Circumduction    (B) Lateral rotation    (C) Flexion    (D) Abduction    (E) Pronation

ii. Which of the following refers to a movement in an outward rotation?

- (A) Extension    (B) Medial rotation    (C) Elevation    (D) Adduction    (E) Supination

iii. When fight & punch someone in the face you bring your fingers in?

- (A) Extension    (B) Medial rotation    (C) Flexion    (D) Adduction    (E) Supination

iv. Rotation is only actively possible at this joint?

- (A) Shoulder    (B) Elbow    (C) Wrist    (D) Fingers    (E) Ankle

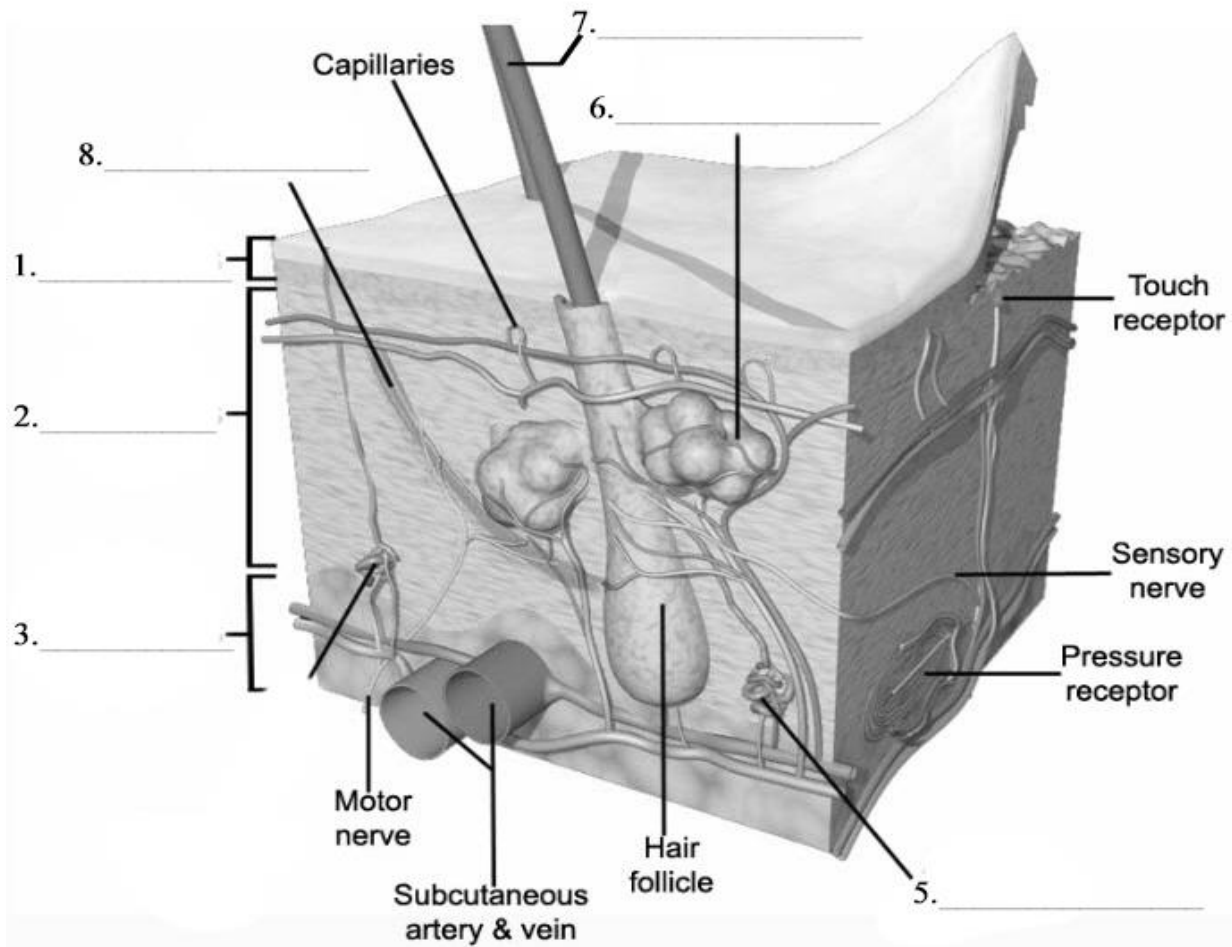
v. When you close your mouth, your lower jaw is in?

- (A) Flexion    (B) Depression    (C) Extension    (D) Elevation    (E) Rotation



## Exercise 1

1. Label the layers of the skin and epidermal appendages. Which appendix is not shown in this section?



## Exercise 2

1. Indicate whether each of the following sentences is true (T) or False (F)

- |   |     |     |
|---|-----|-----|
| 1. The hypodermis contains cutaneous nerves & superficial veins/lymphatics            | (T) | (F) |
| 2. A second degree burn reaches the subcutaneous tissue                               | (T) | (F) |
| 3. An incision made parallel to the skin tension lines slowly fast with much scarring | (T) | (F) |
| 4. The superficial fascia is more uniformly distributed in females than in males      | (T) | (F) |
| 5. Deeps fascial partitions between muscle groups are called septa                    | (T) | (F) |

2. What are the functions of superficial fascia?

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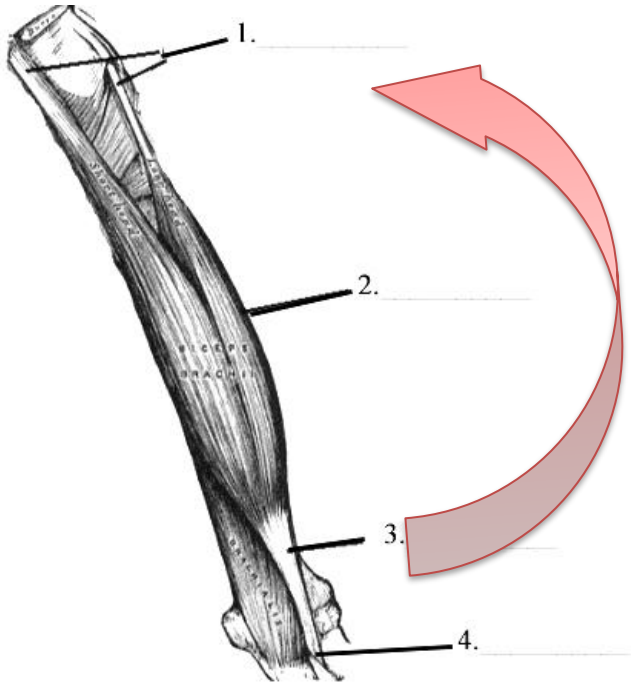


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## Exercise 1

Label the parts of the skeletal muscle shown below. ( The arrow indicates the direction of movement)



## Exercise 2

Match each skeletal muscle on the left with its naming principle on the right *(you may chose more than one)*

MUSCLE	NAMING
(     ) Triceps brachii	a. Shape
(     ) Depressor labii	b. Size
(     ) Rhomboid major	c. Location
(     ) Deltoid	d. Action
(     ) Palmaris longus	e. Number of heads/bellies

## Exercise 3

Match each muscle on the left with its characteristics on the right *(you may chose more than one)*

MUSCLE	NAMING
(     ) Skeletal muscles	a. Striated
(     ) Smooth muscles	b. Unstriated
(     ) Cardiac muscle	c. Voulntary
	d. Involuntary
	e. Peristalsis
	d. Pumps blood



## Exercise 1

List 5 differences between arteries & veins. (can you come up with more than 5?).

ARTERIES	VEINS

## Exercise 2

In an emergency room, how can you differentiate between arterial & venous bleeding on the spot?

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## Exercise 3

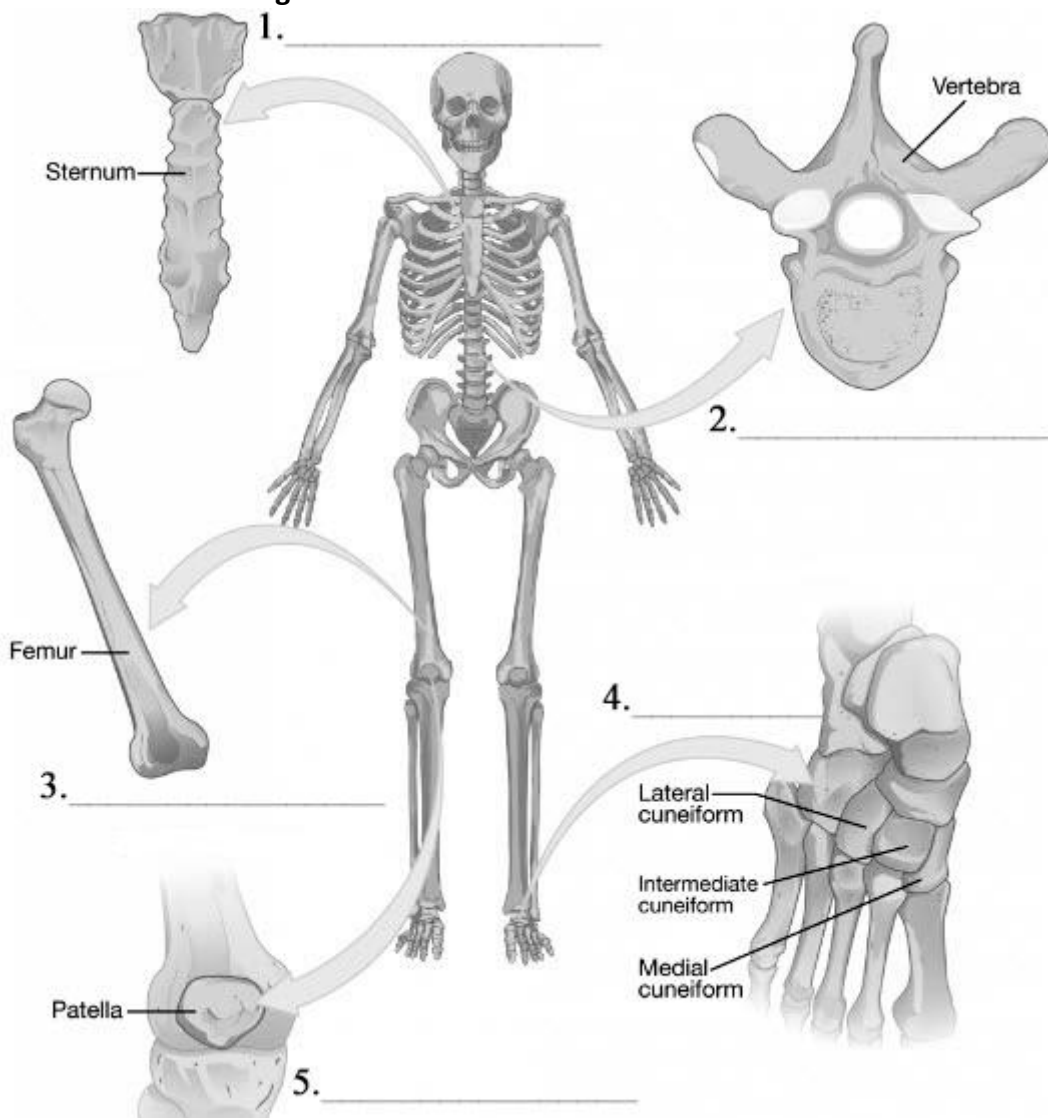
**Complete the following sentences:**

- i. Blood is filtrated into the space between cells to form \_\_\_\_\_
- ii. Below the level of the heart, \_\_\_\_\_ prevent retrograde blood flow in the veins.
- iii. An example of anatomical end arteries is found in the \_\_\_\_\_
- vi. All the lymph of the body is returned to the \_\_\_\_\_ **side of the blood circulation.**



## Exercise 1

In the diagram below label the anatomical types of bone. Next to it, enumerate the parts of the axial skeleton & the regions of the vertebral column with the number of vertebrae in each region.



**-Parts of the axial skeleton:**

- 1.
- 2.
- 3.

**-Vertebral regions:**

- 1.
- 2.
- 3.
- 4.
- 5.

## Exercise 2

**Complete the following sentences:**

- i. Red bone marrow is found in the filling of all bones except \_\_\_\_\_
- ii. The expanded ends of long bones are called \_\_\_\_\_ while the tubular midportion is called the \_\_\_\_\_
- iii. The ear (auricle) cartilage is an example of \_\_\_\_\_ cartilage, while intervertebral discs are examples of \_\_\_\_\_ cartilage

# 7

## Bones & Cartilage





## Exercise 1

In the diagram below label the anatomical types of synovial joints giving an example from the upper limb for each type and the possible movements it can perform.

The diagram shows the upper limb skeleton with callouts to the following joints:

- Shoulder:** Type: \_\_\_\_\_ Example: \_\_\_\_\_ Movements: \_\_\_\_\_
- Elbow:** Type: \_\_\_\_\_ Example: \_\_\_\_\_ Movements: \_\_\_\_\_
- Wrist:** Type: \_\_\_\_\_ Example: \_\_\_\_\_ Movements: \_\_\_\_\_
- Hand:** Type: \_\_\_\_\_ Example: \_\_\_\_\_ Movements: \_\_\_\_\_

## Exercise 2

2. Choose the most appropriate response for each of the following:

i. Sutures of the skull are an example of this joint:

- (A) Fibrous    (B) Cartilaginous    (C) Condyloid    (D) Symphysis    (E) Syndesmosis

ii. Joints found at or near the midline of the body are mostly

- (A) Fibrous    (B) Cartilaginous    (C) Condyloid    (D) Ellipsoid    (E) Plane

iii. Fibrous bands that connect articulating bones are called:

- (A) Tendons    (B) Retinacula    (C) Bursa    (D) Ligaments    (E) Aponeurosis

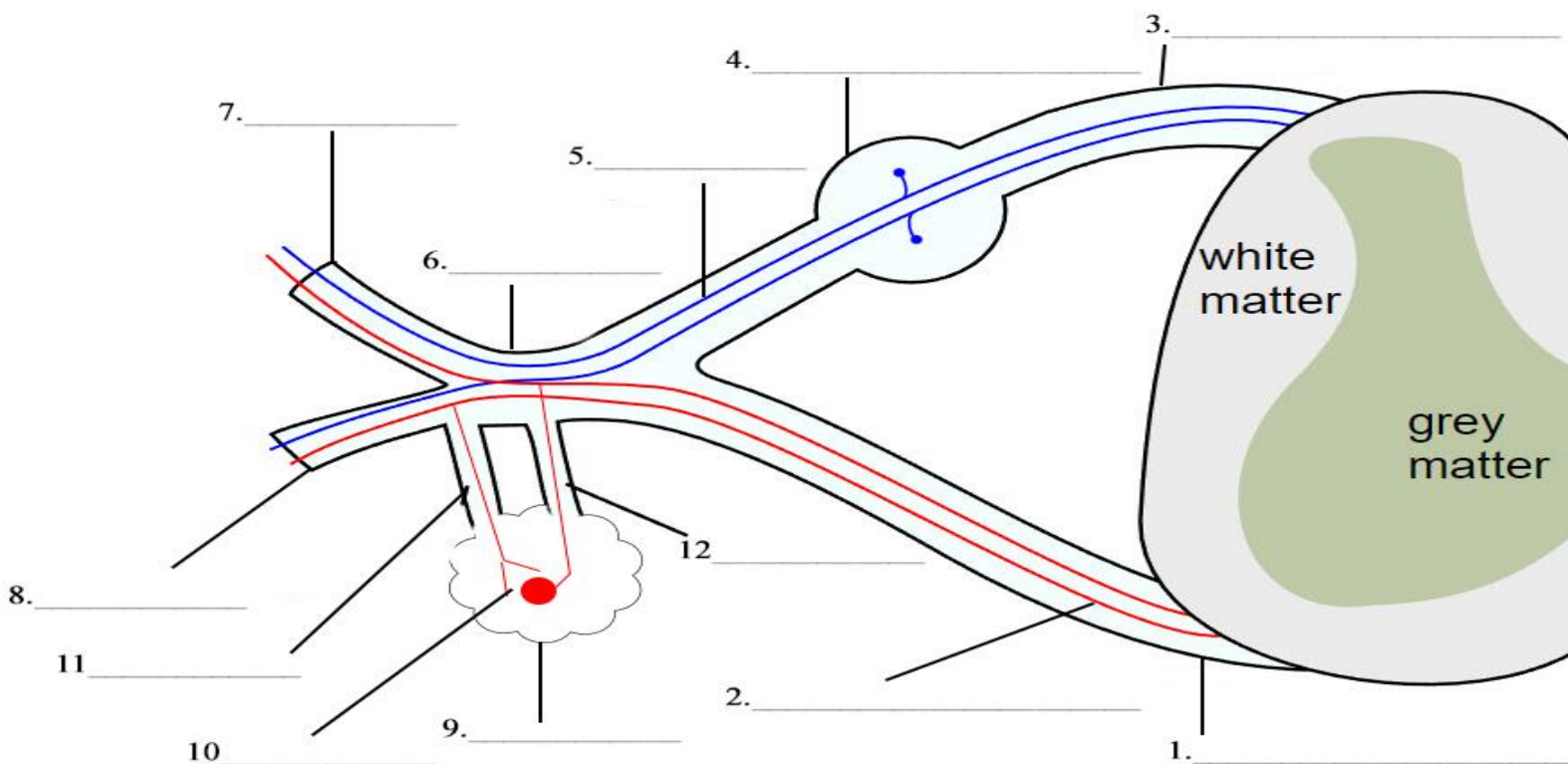
iv. The synovial joint that can only allow rotation is:

- (A) Plane    (B) Hinge    (C) Saddle    (D) Ellipsoid    (E) Pivot



## Exercise 1

In the diagram below label the parts of the typical spinal nerve & discuss with your colleagues the function of each part.



## Exercise 2

**Complete the following sentences:**

- i. There are \_\_\_\_\_ cervical spinal nerves but only \_\_\_\_\_ cervical vertebrae because all the spinal nerve arise \_\_\_\_\_ to their corresponding vertebrae but the cervical nerves arise \_\_\_\_\_ to their corresponding vertebra allowing C8 spinal nerve to emerge between \_\_\_\_\_ & \_\_\_\_\_ vertebrae
- ii. The thoracolumbar system is another name for the \_\_\_\_\_ system which is located between \_\_\_\_\_ spinal segments
- iii. The cranial nerves that contain parasympathetic fibers are:  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ & \_\_\_\_\_

