

Geometric Anatomy and Health

Basic Geometry · Answer Key · 8 Questions

1. Which geometric shape most accurately describes the cross-sectional structure of a healthy human red blood cell?

- A) Square
- B) Biconcave disc**
- C) Triangle
- D) Pentagon

2. The human eye is roughly spherical, and the process of accommodation involves changing the curvature of which internal component to focus light?

- A) The retina
- B) The sclera
- C) The crystalline lens**
- D) The optic nerve

3. In orthopaedics, the angle formed by the intersection of the femoral shaft and the femoral neck is known as what?

- A) Angle of inclination**
- B) Tibia-fibula angle
- C) Acute lumbar curvature
- D) Pelvic tilt

4. The human rib cage is often described as forming a structure that protects the thoracic cavity; which geometric solid best approximates this shape?

- A) Cube
- B) Sphere
- C) Pyramid
- D) Frustum of a cone**

5. During a standard blood pressure reading, the arm cuff applies pressure to the brachial artery; what geometric shape does a perfectly inflated circular artery maintain in cross-section?

- A) Cylinder**
- B) Cube
- C) Pyramid
- D) Trapezoid

6. Which part of the human skeletal system functions as a lever arm in a third-class lever system, common in biomechanical geometry?

- A) The skull
- B) The forearm**
- C) The pelvic girdle
- D) The spinal column

7. In dental anatomy, the surface of a tooth that faces the cheek or lip is geometrically referred to by what directional term?

- A) Occlusal
- B) Lingual
- C) Buccal**
- D) Proximal

8. The human vertebral column is divided into regions that create natural curves; what is the geometric term for the backward curvature (convex posteriorly) of the thoracic spine?

- A) Kyphosis**
- B) Lordosis
- C) Scoliosis
- D) Flatback