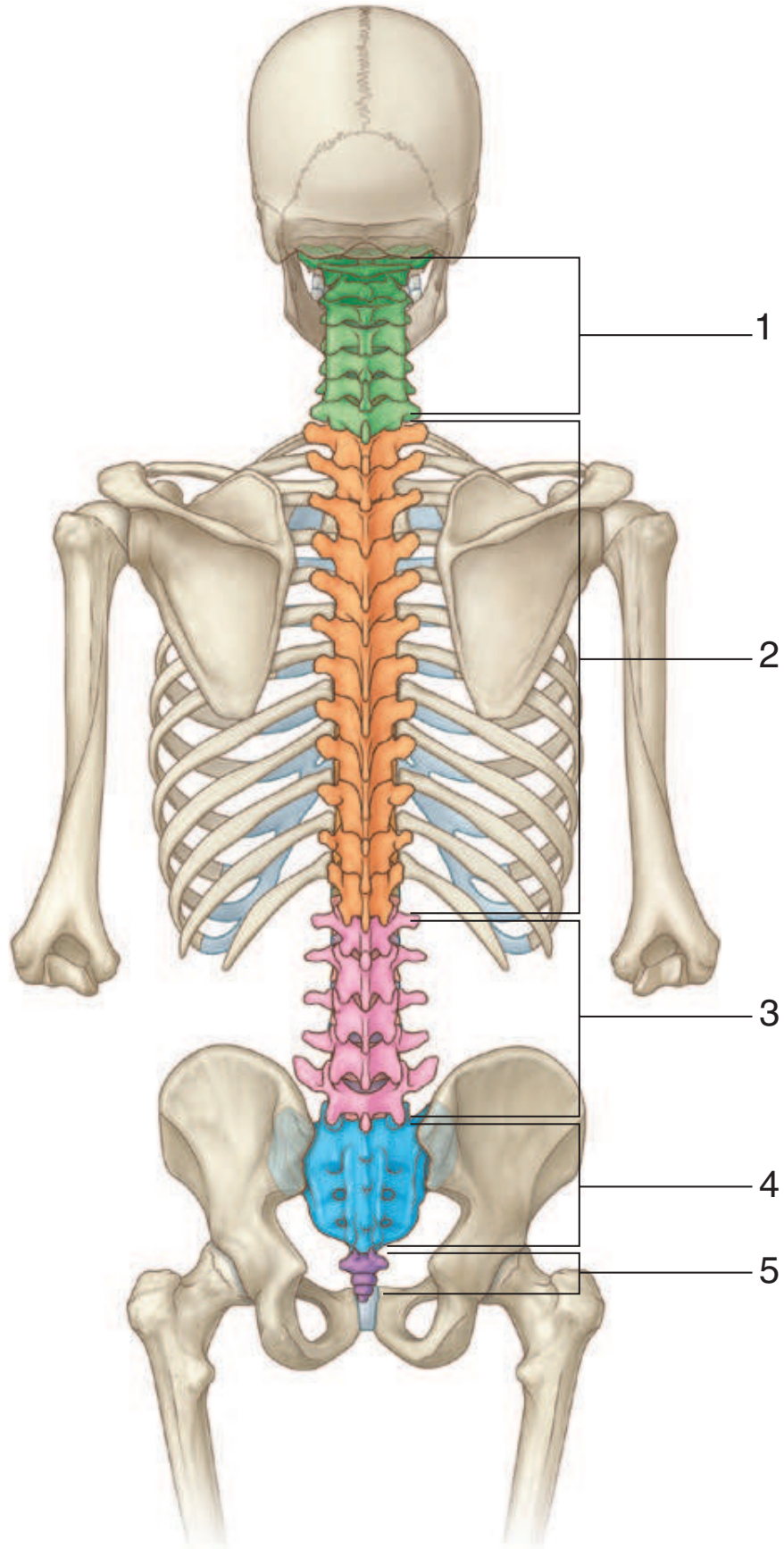




SKELETAL FRAMEWORK: VERTEBRAL COLUMN

*Identify the indicated vertebral regions.
How many vertebrae are in each region?*



SKELETAL FRAMEWORK: VERTEBRAL COLUMN



1. Cervical (7 vertebrae; C1-CVII)
2. Thoracic (12 vertebrae; T1-TXII)
3. Lumbar (5 vertebrae; L1-LV)
4. Sacral (5 fused vertebrae I-V; sacrum)
5. Coccygeal (3 or 4 coccygeal vertebrae; coccyx)

IN THE CLINIC:

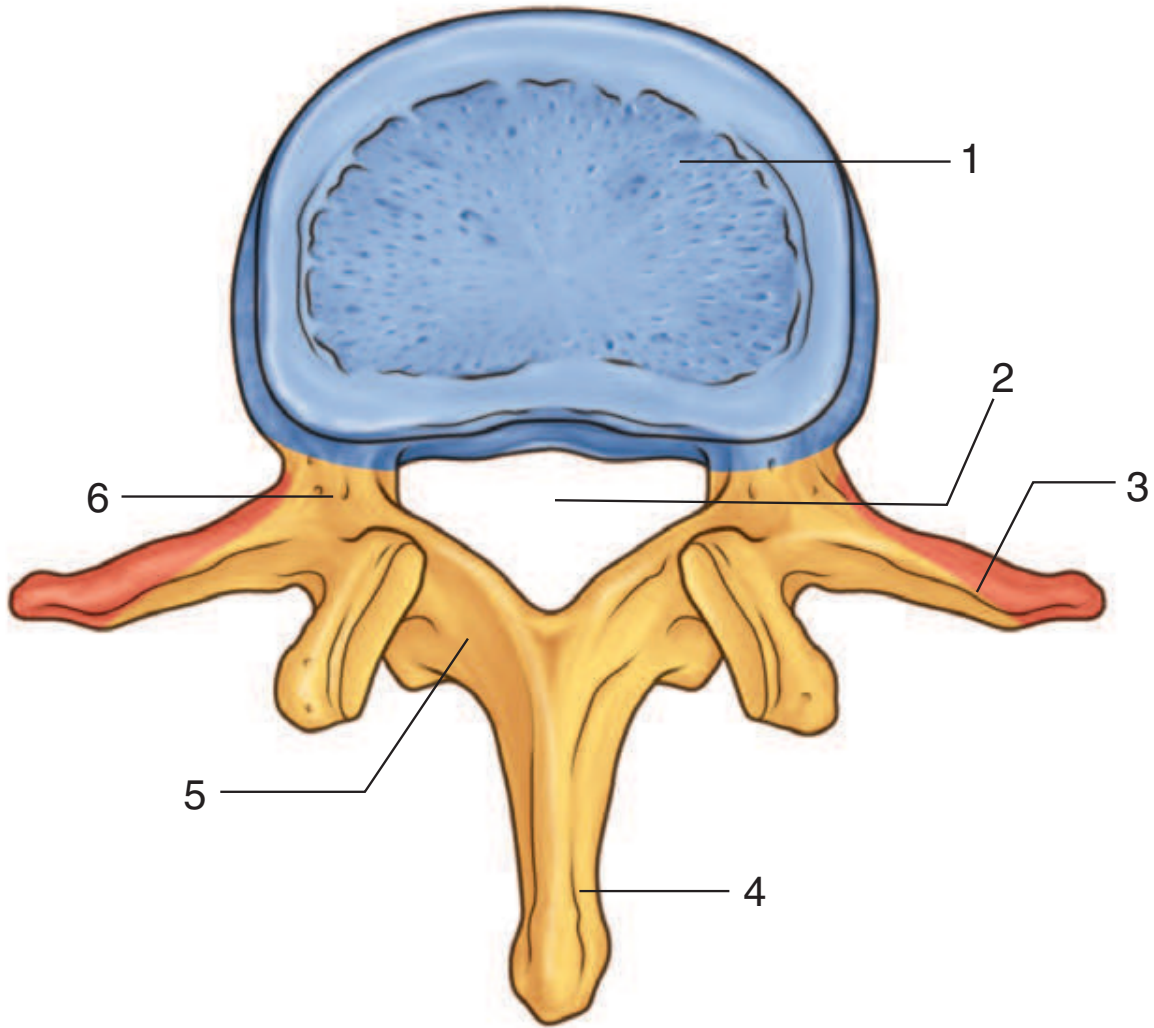
- **Vertebral fractures can result in damage to the spinal cord or to spinal nerves.**

Figure from Gray's Anatomy for Students, 3rd edition, p. 56.

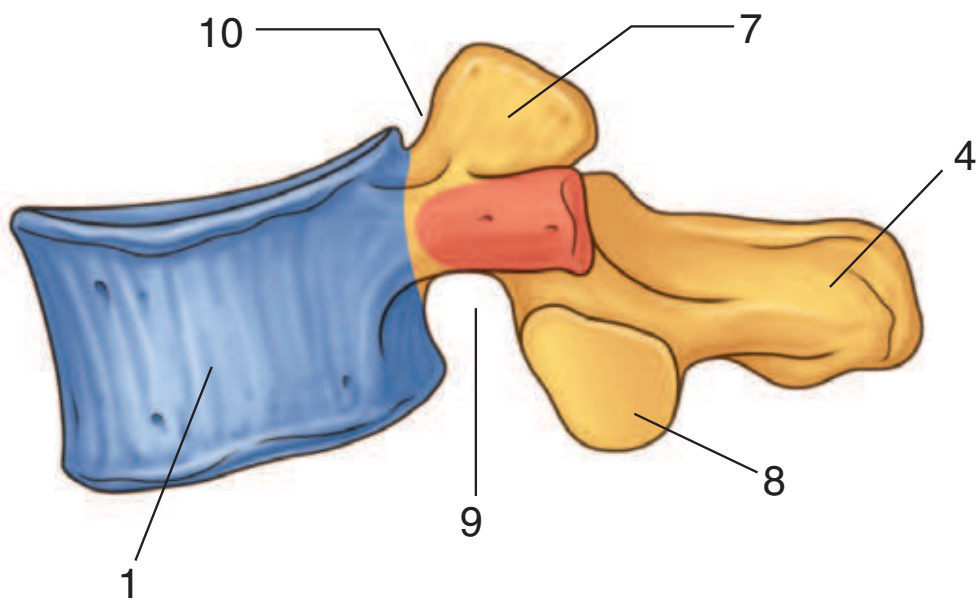


SKELETAL FRAMEWORK: TYPICAL VERTEBRA

Identify the indicated parts of the vertebra.



Superior view



Lateral view

SKELETAL FRAMEWORK: TYPICAL VERTEBRA



1. Vertebral body
2. Vertebral foramen
3. Transverse process
4. Spinous process
5. Lamina
6. Pedicle
7. Superior articular process
8. Inferior articular process
9. Inferior vertebral notch
10. Superior vertebral notch

IN THE CLINIC:

- **During surgery, a laminectomy (removal of the laminae) is used to access the vertebral canal.**

Figure from Gray's Anatomy for Students, 3rd edition, p. 57.

SKELETAL FRAMEWORK: VERTEBRA 1



This vertebra is from the cervical region.

1. Vertebral body
2. Foramen transversarium
3. Spinous process
4. Transverse process

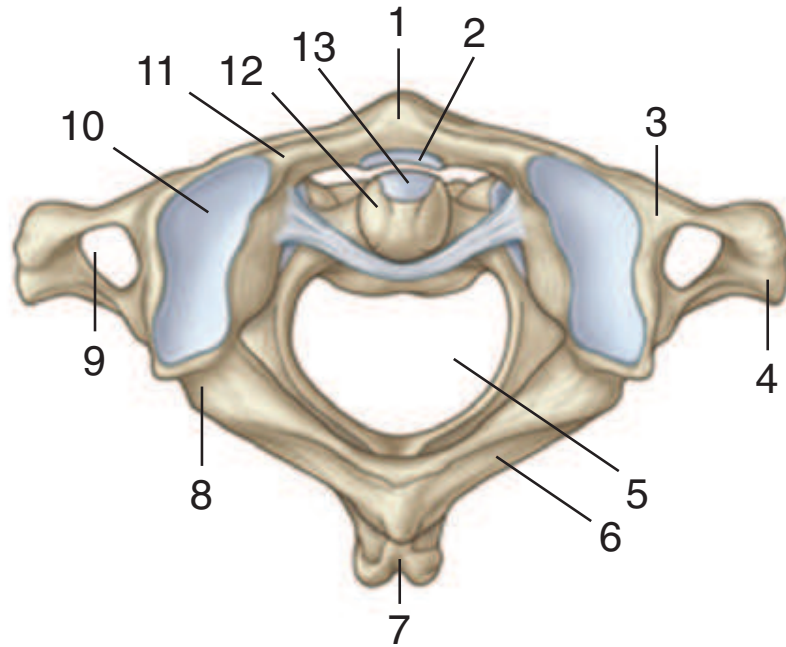
IN THE CLINIC:

- **The vertebral artery and associated veins pass through the foramen transversarium and can be damaged in this location.**

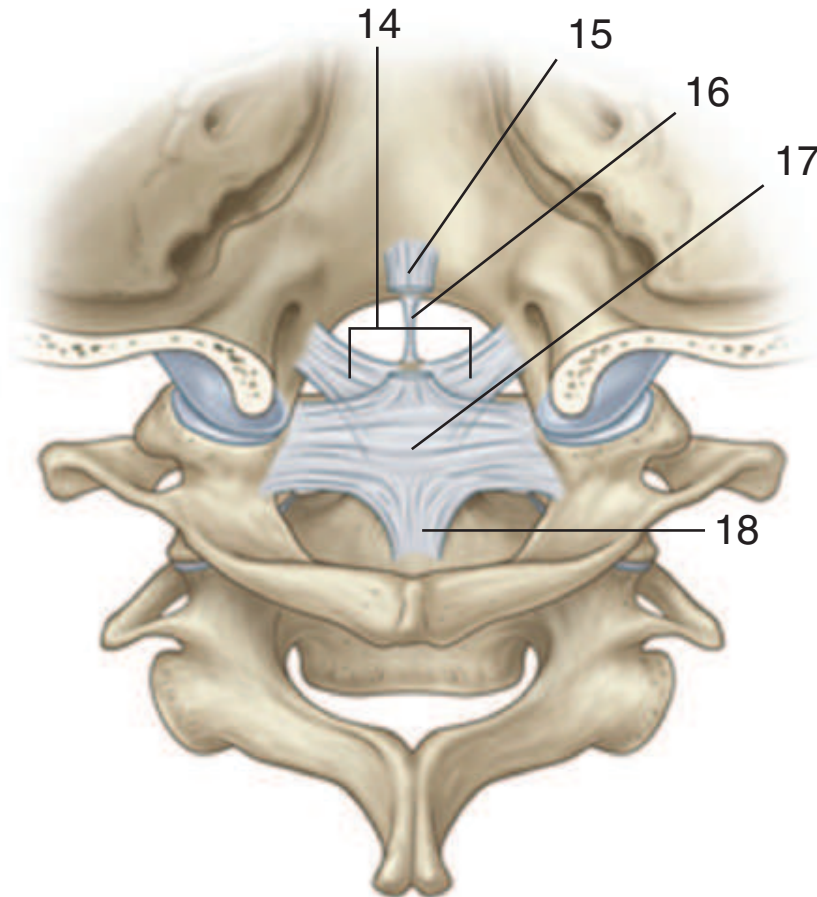
Figure from Gray's Anatomy for Students, 3rd edition, p. 69.



Identify these two vertebrae. Identify the indicated structures.



A Superior view



B Posterior view

SKELETAL FRAMEWORK: ATLAS, AXIS, AND LIGAMENTS



A. Atlas and Axis (superior view)

1. Anterior tubercle
2. Articular facet for dens
3. Lateral mass
4. Transverse process
5. Vertebral foramen
6. Posterior arch
7. Posterior tubercle
8. Groove for vertebral artery
9. Foramen transversarium
10. Superior articular facet
11. Anterior arch
12. Dens
13. Anterior articular facet

B. Ligaments (posterior view)

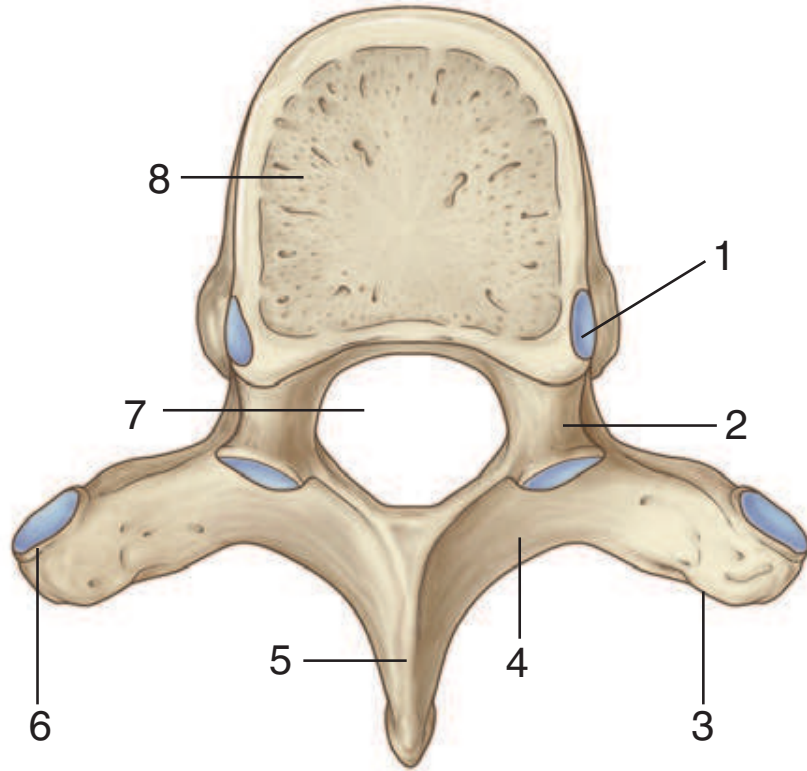
14. Alar ligaments
15. Superior longitudinal band of cruciform ligament
16. Apical ligament of dens
17. Transverse ligament of atlas
18. Inferior longitudinal band of cruciform ligament

Figure from Gray's Atlas of Anatomy, 2nd edition, p. 537.

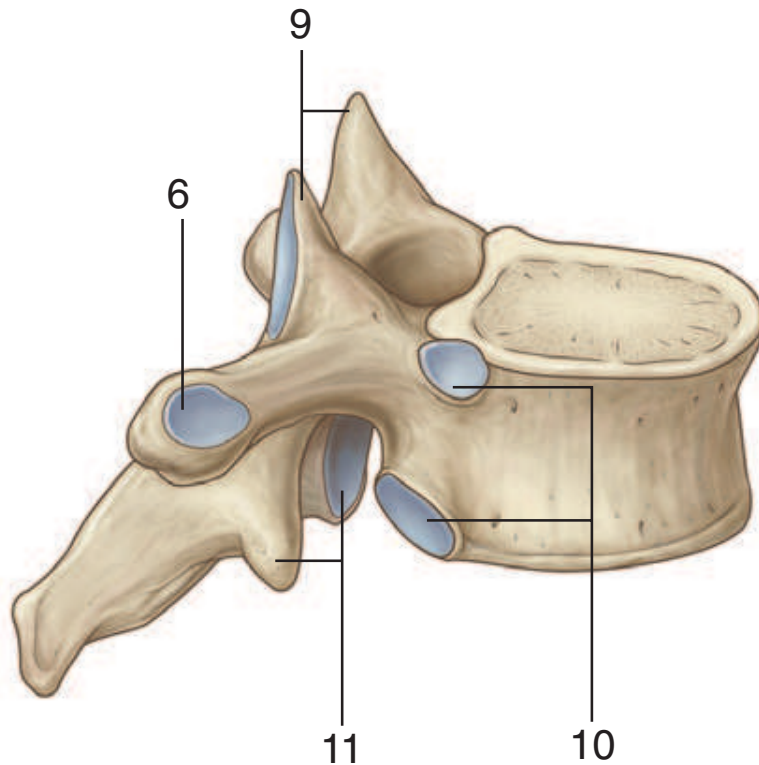


SKELETAL FRAMEWORK: VERTEBRA 2

From which region of the vertebral column is this vertebra? Identify the indicated structures.



Superior view



Lateral view

SKELETAL FRAMEWORK: VERTEBRA 2



This vertebra is from the thoracic region.

1. Superior demifacet for articulation with head of rib above
2. Pedicle
3. Transverse process
4. Lamina
5. Spinous process
6. Facet for articulation with tubercle of rib
7. Vertebral foramen
8. Vertebral body
9. Superior articular processes
10. Demifacets for articulation with head of ribs
11. Inferior articular processes

IN THE CLINIC:

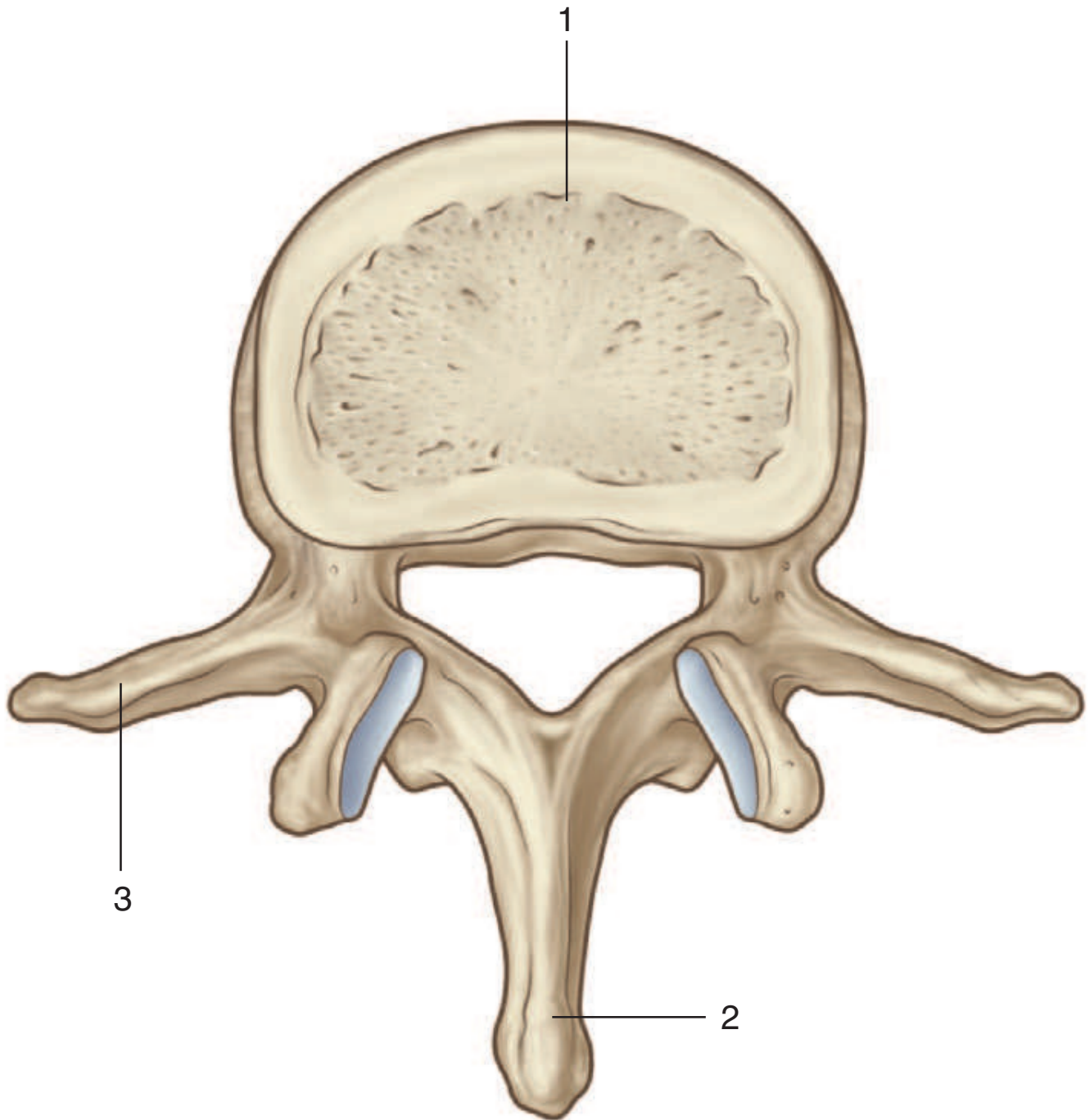
- **Osteoporosis can result in collapse of the vertebral body.**

Figure from Gray's Anatomy for Students, 3rd edition, p. 143.



SKELETAL FRAMEWORK: VERTEBRA 3

From which region of the vertebral column is this vertebra? Identify the indicated structures.



Superior view

SKELETAL FRAMEWORK: VERTEBRA 3



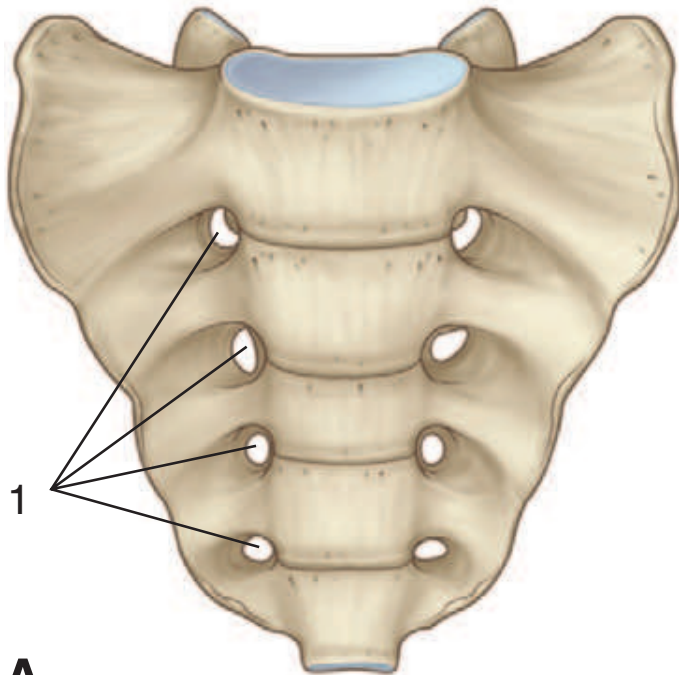
This vertebra is from the lumbar region.

1. Vertebral body
2. Spinous process
3. Transverse process

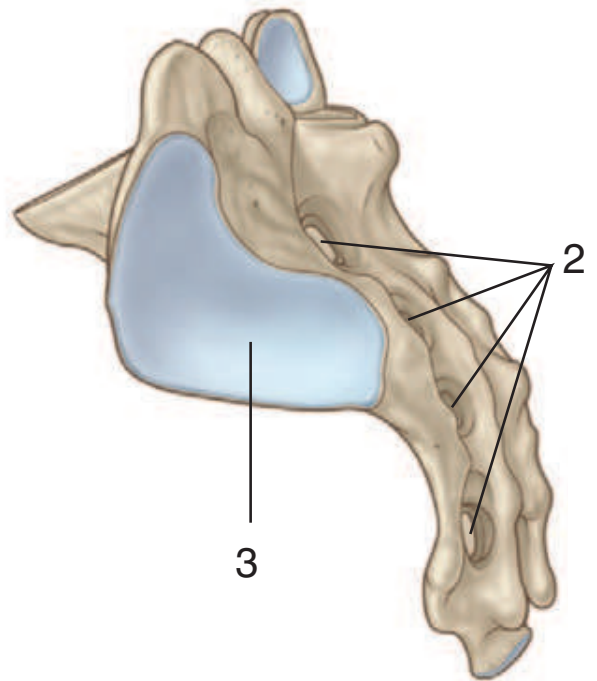
Figure from Gray's Anatomy for Students, 3rd edition, p. 70.



Identify A and B. Identify the indicated structures.



A



B

SKELETAL FRAMEWORK: SACRUM AND COCCYX



A. Sacrum

1. Anterior sacral foramina
2. Posterior sacral foramina
3. Facet for articulation with pelvic bone

B. Coccyx

4. Coccygeal cornu

Figure from Gray's Anatomy for Students, 3rd edition, p. 71.