

4. A saddle-like structure, the **clitellum**, runs from segment 32 to segment 37. It entirely covers the dorsal side of the animal and nearly meets on the ventral side, usually leaving a small strip of skin and segment still visible.
5. The **anus** can be observed at the posterior end, as a small opening on the last segment.
 - (b) Compare the appearance of the mouth to the anus.
6. If you slide your finger along the lower sides of the animal, you should feel small, projecting bristles called **setae**. Examine one segment with the hand lens to see the setae.
 - (c) State the number and location of setae per segment.
7. Examine the **ventral side** of the 15th segment and observe the paired, slightly swollen "lips" where the **sperm ducts** (male reproduction system) open to the outside of the body. Select a segment in the middle region of the earthworm.
8. You may be able to observe a pair of **nephridial pores**, one on either side of the ventral mid line and slightly above the first pair of setae. They are found in each segment, except in segments 1-3 and the last.
 - (d) What is the function of the nephridial pores?

Part 2. Dissection guide.

9. Place the earthworm lengthwise in a dissecting pan, **dorsal side up**, with the anterior end pointing away from you. Fix it in position with a pair of pins through the clitellum, and single pins through the first and last segments.
10. Insert the point of the dissecting scissors under the skin in the mid-dorsal line at the clitellum and cut forward carefully. Do not cut very deeply. Keep the points of the scissors well up, and slightly lift them while cutting, to prevent damage to the internal organs. Continue to cut forward to segment 3.
11. Gently pull the cut portions of the body wall slightly toward the sides. Observe the fluid-filled body cavity called the **coelom**, through which the **digestive tract** runs. The body wall and digestive tract are connected, between segments, by transverse membranes, the **septa**. Cut carefully through the septa, one at a time, until you expose all the organs in the coelom.
12. Starting at segment 5 and continuing through segments, 10, 15, and so on, pin down the sides of the earthworm to the pan. The pins will serve as markers for locating the internal organs. If the tissues begin to dry up during dissecting, moisten them with drops of water.

Position of earthworm in a dissecting pan – dorsal side up.

