

- \_\_\_\_\_ 3. In which direction is the flow of calcium ions in Figure 36-3?
- a. outside of myelin sheath c. towards axon
- b. into synaptic space d. towards dendrite
- \_\_\_\_\_ 4. Which part of Figure 36-3 is affected most by drugs?
- a. B c. C
- b. D d. A
- \_\_\_\_\_ 5. Where do the neurotransmitters end up in Figure 36-3?
- a. in the synaptic space c. in the axon
- b. outside of myelin sheath d. in the dendrite

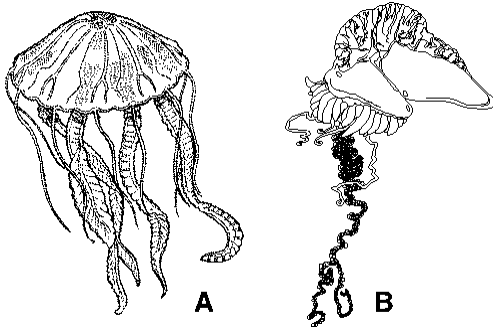


Figure 26-3

6. How are the two organisms shown in Figure 26-3 different?
- A is a cnidarian and B is not
  - only B is poisonous
  - A is a medusa and B is a polyp colony
  - A moves but B doesn't

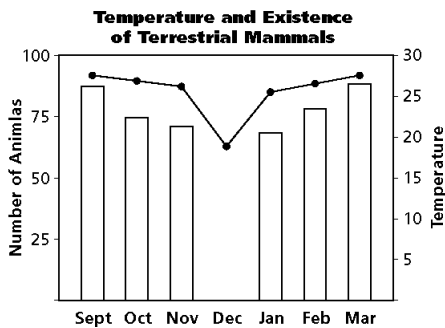


Figure 33-1

7. Which area of the world would be a poor choice to transplant the population shown in Figure 33-1?
- Florida
  - the Midwest
  - Iceland
  - Hawaii
8. What is the most likely reason for the dip in population shown in figure 33-1?
- hibernation
  - migration
  - sickness
  - habitat destruction
9. Predict the population of the organisms shown in Figure 33-1 for February of the next year?
- about 100
  - about 50
  - about 75
  - almost zero
10. By age 20, a person's bones stop growing because \_\_\_\_.
- bone cells receive less oxygen and nutrients at that time
  - bone-forming cells are no longer present
  - less calcium is present in the body
  - hormones cause the growth centers at the ends of bones to degenerate

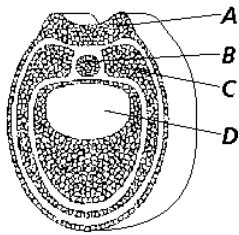




- 
- This diagram illustrates the structure of human skin. The outermost layer is the epidermis, which includes a thin layer of dead epidermis. Below the epidermis is the dermis, which contains various structures including oil glands, hair follicles, and sweat glands. The bottom layer shown is the subcutaneous layer. Touch receptors are depicted as long, thin structures extending from the surface into the dermis.
- Dead epidermis
  - Epidermis
  - Dermis
  - Oil gland
  - Hair follicle
  - Subcutaneous layer
  - Touch receptor
  - Sweat gland

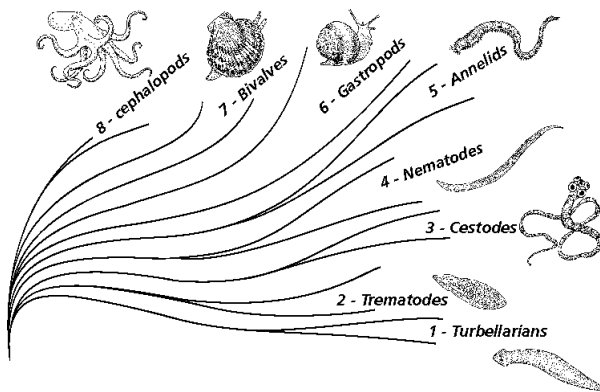
### Figure 34-2

- \_\_\_\_\_ 22. Which portion of skin shown in Figure 34-2 changes when you get a suntan?
- a. dermis  
b. dead epidermis  
c. epidermis  
d. subcutaneous layer
- \_\_\_\_\_ 23. Which portion of skin shown in Figure 34-2 is where a pimple forms?
- a. oil gland  
b. sweat gland  
c. subcutaneous layer  
d. hair follicle
- \_\_\_\_\_ 24. Which of the following are activities of drugs in the nervous system?
- a. decreased neurotransmitter activity at a synapse  
b. increased neurotransmitter activity at a synapse  
c. alteration of pain or mood  
d. all of these



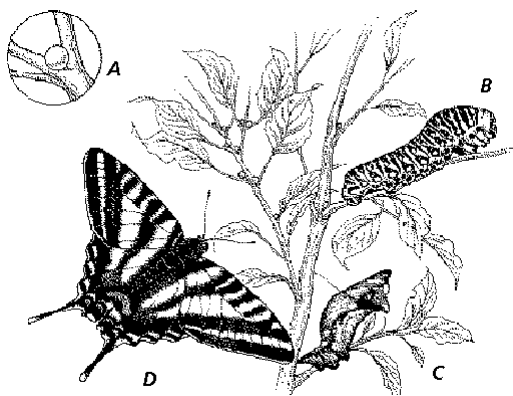
**Figure 29-3**

- \_\_\_\_ 25. The notochord shown in Figure 29-3 is surrounded on two sides by what?
- |             |             |
|-------------|-------------|
| a. endoderm | c. exoderm  |
| b. ectoderm | d. mesoderm |
- \_\_\_\_ 26. Identify the notochord in Figure 29-3.
- |      |      |
|------|------|
| a. A | c. C |
| b. D | d. B |
- \_\_\_\_ 27. Crabs, lobsters, shrimps, and pill bugs are members of the class \_\_\_\_.
- |              |              |
|--------------|--------------|
| a. Crustacea | c. Insecta   |
| b. Chilopoda | d. Arachnida |



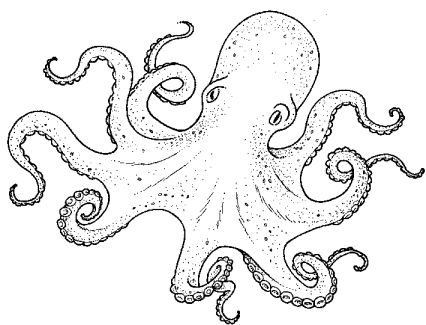
**Figure 27-5**

- \_\_\_\_ 28. According to Figure 27-5, which phylum are annelids closest to on an evolutionary scale?
- |              |               |
|--------------|---------------|
| a. cestodes  | c. bivalves   |
| b. nematodes | d. gastropods |
- \_\_\_\_ 29. According to Figure 27-5, which phylum evolved first?
- |             |              |
|-------------|--------------|
| a. annelids | c. planaria  |
| b. bivalves | d. nematodes |



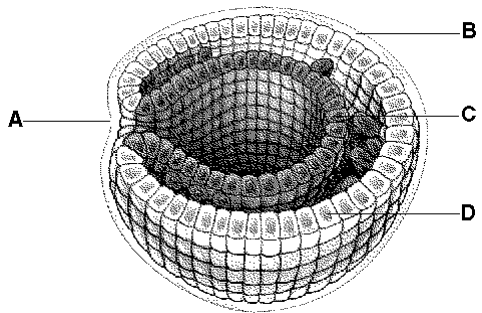
**Figure 28-6**

- \_\_\_ 30. What stage of metamorphosis shown in Figure 28-6 contains the youngest organism?
- |      |      |
|------|------|
| a. B | c. D |
| b. C | d. A |
- \_\_\_ 31. In what stage of metamorphosis shown in Figure 28-6 does the organism have recognizable insect characteristics like three segments and jointed appendages?
- |      |      |
|------|------|
| a. A | c. D |
| b. C | d. B |
- \_\_\_ 32. What stage of metamorphosis shown in Figure 28-6 does the most eating take place?
- |      |      |
|------|------|
| a. B | c. D |
| b. C | d. A |
- \_\_\_ 33. What stage of metamorphosis shown in Figure 28-6 has characteristics of chilopoda and diplopoda?
- |      |      |
|------|------|
| a. B | c. C |
| b. A | d. D |
- \_\_\_ 34. What clue tells you immediately that the organism shown in Figure 28-3 is not an arthropod?



**Figure 28-3**

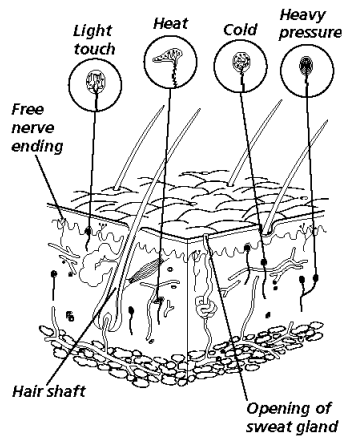
- |                            |                                 |
|----------------------------|---------------------------------|
| a. it doesn't molt         | c. it has no jointed appendages |
| b. it has more than 6 legs | d. it cannot fly                |
- \_\_\_ 35. Which of these is an example of imprinting?
- |  |
|--|
| a. A bird makes a nest of grasses and twigs.                             |
| b. A chimpanzee searches for a longer pole to reach for a distant fruit. |
| c. Your cat rubs against your ankles when you open a can of cat food.    |
| d. Young ducklings follow their mother.                                  |



**Figure 25-2**

- \_\_\_\_ 36. In Figure 25-2, where is the endoderm?
- |      |      |
|------|------|
| a. B | c. C |
| b. D | d. A |

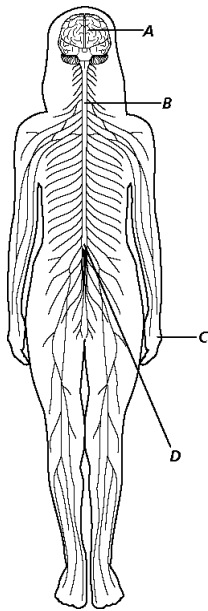
37. A(n) \_\_\_\_\_ muscle contracts under unconscious control.
- involuntary
  - striated
  - voluntary
  - skeletal



**Figure 36-5**

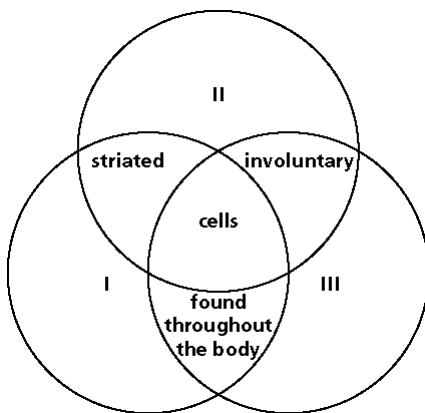
38. Why are the heat sensors located just under the epidermis in Figure 36-5?
- because heat isn't damaging to nerves
  - so heat can be sensed fast
  - so heat can be easily ignored
  - because heat is hard to sense
39. Why is the heavy pressure sensor located where it is shown in Figure 36-5?
- because heavy pressure is really only felt in the epidermis
  - because heavy pressure is more damaging than light pressure
  - because heavy pressure must push lower in the skin
  - because heavy pressure is not that important
40. A group of cnidarians that provide food and shelter for many kinds of animals are the \_\_\_\_\_.
- jellyfishes
  - corals
  - sea anemones
  - hydras
41. Uncooked or undercooked pork may contain \_\_\_\_\_.
- pinworms
  - free-living roundworms
  - hookworms
  - trichina worms
42. The animal's digestive tract forms from the \_\_\_\_\_.
- ectoderm
  - protostome
  - mesoderm
  - endoderm
43. Which of the following is NOT an example of the use of a pheromone?
- Hyenas give off an odor that keeps different clans of hyenas apart.
  - Poisonous snakes wind around each other and butt heads.
  - Wolves mark their territories by urinating at the boundaries.
  - The skunk releases a rotten odor when it is threatened.





**Figure 36-2**

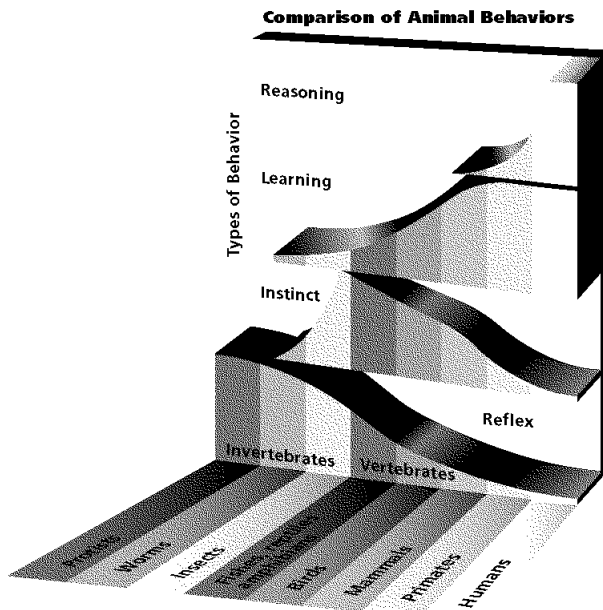
- \_\_\_ 44. What is the path of a reflex impulse in Figure 36-2?
- |              |          |
|--------------|----------|
| a. C-B-A-B-C | c. C-B-C |
| b. C-A-C     | d. C-D-C |
- \_\_\_ 45. Which of these animals has bilateral symmetry?
- |              |             |
|--------------|-------------|
| a. jellyfish | c. flatworm |
| b. hydra     | d. sponge   |
- \_\_\_ 46. When a bird sings to signal others of the same species to keep away, it is showing signs of \_\_\_\_.
- |                       |                 |
|-----------------------|-----------------|
| a. cheerfulness       | c. aggression   |
| b. courtship behavior | d. conditioning |



**Figure 34-4**

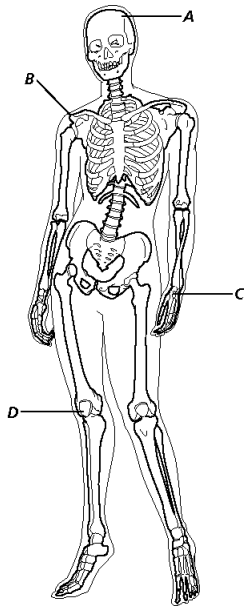
- \_\_\_ 47. Which type of muscle is labeled II in the Venn diagram shown in Figure 34-4?
- |             |             |
|-------------|-------------|
| a. cardiac  | c. skeletal |
| b. filament | d. smooth   |
- \_\_\_ 48. Which type of muscle is labeled I in the Venn diagram shown in Figure 34-4?
- |            |             |
|------------|-------------|
| a. smooth  | c. skeletal |
| b. cardiac | d. filament |

- \_\_\_\_ 49. After suffering widespread third-degree burns, the burn victim \_\_\_\_.
- has slight damage to cells of the dermis
  - recovers in a short time
  - is unlikely to incur bacterial infection
  - has a harder time regulating body temperature
- \_\_\_\_ 50. For trial-and-error learning to take place, an animal receives \_\_\_\_.
- a reward for a particular response
  - a dose of imprinting
  - habituation
  - conditioning



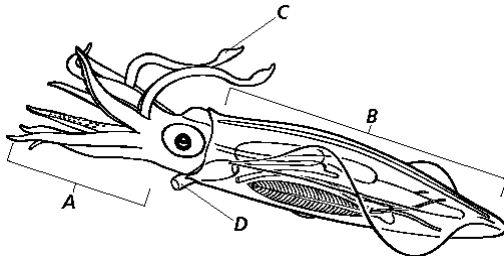
**Figure 33-2**

- \_\_\_\_ 51. According to Figure 33-2, which animal would be most likely to solve a problem?
- rat
  - ostrich
  - planaria
  - shark
- \_\_\_\_ 52. Alcohol may act on the CNS by \_\_\_\_.
- blocking the movement of sodium and calcium ions across the cell membrane
  - increasing oxygen content
  - speeding up the movement of sodium and calcium ions
  - increasing anxiety
- \_\_\_\_ 53. Which of the following applies to a sponge?
- intracellular digestion
  - has a gastrula stage
  - develops three embryonic layers
  - bilateral symmetry
- \_\_\_\_ 54. Which type of muscle makes up the heart?
- skeletal
  - cardiac
  - smooth
  - all of these



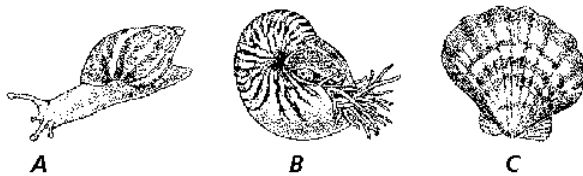
**Figure 34-3**

55. Which joints in Figure 34-3 do not move?
- |      |      |
|------|------|
| a. D | c. B |
| b. C | d. A |



**Figure 27-3**

56. Which part of the squid shown in Figure 27-3 is analogous to a snail's shell?
- |      |      |
|------|------|
| a. A | c. D |
| b. C | d. B |



**Figure 27-2**

57. Which shell shown in Figure 27-2 is from a bivalve?
- |      |                 |
|------|-----------------|
| a. C | c. B            |
| b. A | d. none of them |
58. The stages of incomplete metamorphosis are \_\_\_\_.
- |                       |                            |
|-----------------------|----------------------------|
| a. egg, nymph, adult  | c. egg, larva, pupa, adult |
| b. larva, pupa, adult | d. egg, larva, adult       |

- \_\_\_\_ 59. The typical tick body consists of \_\_\_\_ segment(s).
- a. three
  - b. one
  - c. four
  - d. two
- \_\_\_\_ 60. The \_\_\_\_ is the area of the brain that controls involuntary activities,, such as breathing and heart rate.
- a. hypothalamus
  - b. cerebellum
  - c. cerebrum
  - d. medulla oblongata

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