

SECTION 50-2 REVIEW

PERIPHERAL NERVOUS SYSTEM

VOCABULARY REVIEW Explain the relationship between the terms in each of the following pairs of terms.

1. autonomic nervous system, sympathetic division _____

2. somatic nervous system, autonomic nervous system _____

3. reflex, spinal reflex _____

4. peripheral nervous system, motor division _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. Axons that are required for the patellar reflex are located in

a. the patella.	c. the ventral root only.
b. a spinal nerve	d. None of the above
- _____ 2. A spinal reflex requires

a. the spinal cord to be separated from the brain.	b. involvement of the diencephalon.
c. the spinal cord but not the brain.	d. only afferent neurons.
- _____ 3. The sympathetic division

a. is part of the central nervous system.	c. excites smooth muscles.
b. excites skeletal muscles.	d. All of the above
- _____ 4. The somatic nervous system

a. is a component of the autonomic nervous system.	b. primarily affects skeletal muscles.
c. primarily consists of sensory receptors.	d. primarily affects smooth muscles.
- _____ 5. Axons in the ventral root of a spinal nerve could be part of

a. a sensory neuron.	c. the autonomic nervous system.
b. a cranial nerve.	d. an interneuron.

SHORT ANSWER Answer the questions in the space provided.

1. How does the body respond to stress or danger? _____

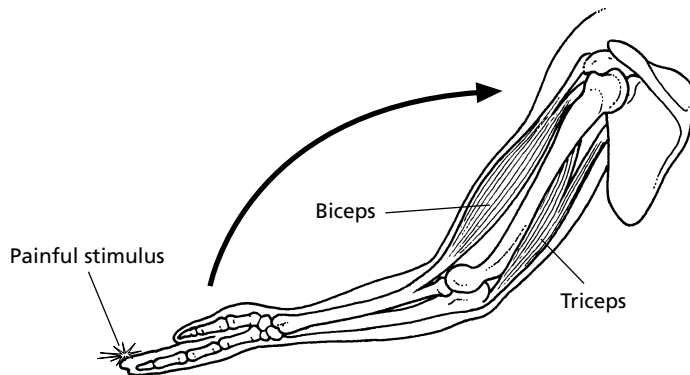
2. Which part of the peripheral nervous system is most important for homeostasis? Explain your answer. _____

3. What is the function of the somatic nervous system? _____

4. **Critical Thinking** Do the central nervous system and the peripheral nervous system function independently of one another? Explain your answer. _____

STRUCTURES AND FUNCTIONS Use the figure below to answer the following questions.

The figure below illustrates the bending of the arm that results when a painful stimulus, such as a hot stove or a pin prick, is applied to the hand. This type of withdrawal response, or flexion, is a spinal reflex.



1. Where is the sensory receptor that initiates the reflex? _____

2. Which muscle would contract in response to the painful stimulus? _____
3. Describe how the activity of the triceps muscles would be affected during the reflex? _____

