**The Big Three**

1. What is a bundle of axonal fibers with similar connections?
2. Long, ascending fibers from sc to brainstem, cerebellum, or thalamus are:
3. Long, descending fibers from cortex or brainstem to spinal cord are:
4. Intersegmental fibers within the spinal cord are:
5. A division of spinal cord white matter consisting of fascicule/ tracts is a:
6. What are three faniculi in the spinal cord?
7. What are two fasciculi found in the dorsal column?
8. What is included in the sensory/ afferent information that is processed in the brain?
9. What sensory info does the fasciculus gracilis account for? (area of body)
10. Is it located medially or laterally?
11. Where does it run?
12. What sensory info does the fasciculus cuneatus account for? (area of body)
13. Is it located medially or laterally?
14. Where does it run?
15. Medial Lemniscus Pathway:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fibers from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ enter dorsal root MEDIALLY and join either the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Ascend as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the medulla, but once they cross the medulla at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, becomes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and ascends into brainstem. Of course, synapse at the “relay station” or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, ascend in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and finally synapse at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lobe.

1. The laterofuniculus contains the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which contains the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Lateral Corticospinal Tract:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fibers descend from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. The lateral corticospinal tract accounts for 85% of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the other 15% is accounted for by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Lateral Corticospinal Pathway:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fibers from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lobe descend through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and continue through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They cross in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (more specifically the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_). They then synapse at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the anterior horn. Efferent fibers then exit at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and synapse at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with skeletal muscles.

1. T or F: 100% of the fibers in the lateral corticospinal tract cross in the medulla.
2. T or F: All fibers in the lateral corticospinal tract synapse with the alpha motor neurons before exiting at the ventral root.
3. The spinothalamic tract is sensory or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, therefore the fibers (ascend or descend)?
4. The spinothalamic tract is responsible for transmitting sensory info of what three things?
5. What are the four components of the anterolateral system?
6. Spinothalamic tract pathway:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fibers from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cross at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, specifically the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They ascend as the spinothalamic tract in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and synapse at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. They then ascend through the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and finally synapse at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ lobe.

1. Axonal tracts carry information in a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pattern.
2. T or F: All tracts are bilateral.
3. T or F: Neuronal axons give off many collaterals on their way to the primary target.
4. T or F: Ascending and descending tracts each specifically influence one site within the CNS.
5. T or F: If a single tract is lost, it can be partially compensated for by remaining tracts.
6. When does spinal shock occur?
7. When does it begin to resolve?
8. When does it resolve completely?
9. Three symptoms that result from spinal shock below the lesion are:
10. T or F: As spinal shock resolves, everything goes back to normal.