1. Characteristics
    a] regulates all visceral structures
    b] is automatic - involuntary
    c] is, by definition, motor, or efferent - even though it is now known that the autonomic nerves carry afferent (sensory) fibers - accounts for visceral pain
    d] consists of two neurons (is two neurons long)
        1] preganglionic - located within the CNS
        2] postganglionic - located in autonomic ganglia
    e] consists of two antagonistic parts which generally innervate the same visceral organs
        1] sympathetic
        2] parasympathetic

2. Sympathetic nervous system - found in all 31 pairs of spinal nerves, but outflow from the CNS is T1-L2
    a] thoracolumbar - outflow from all 12 pairs of thoracic and lumbar spinal nerves 1 and 2
    b] preganglionic neurons - cell bodies located in the spinal cord between the dorsal horn and the ventral horn; fibers enter spinal nerves with the ventral roots
    c] rami communicans - means of sympathetic fibers leaving or re-entering spinal nerves
        1] white - conducts preganglionic fibers out of spinal nerves and into the sympathetic chain
        2] gray - conducts postganglionic nerve fibers back into spinal nerves
    d] ganglia - contain cell bodies of postganglionic neurons (2nd neuron)
        1] sympathetic chain (paravertebral) - run on either side of the vertebral column
        2] collateral (prevertebral) - some distance from the origins of their preganglionic fibers, generally around blood vessels; they receive splanchnic nerves
    e] splanchnic nerves - preganglionic nerve fibers which leave the sympathetic chain without synapsing; they synapse in collateral ganglia
    f] postganglionic nerve fibers - from autonomic ganglia, after synapse; travel to the effector organ
    g] preganglionic fibers are relatively short - postganglionic fibers are relatively long
    h] functions - generally prepares body for "fight or flight"
        1] increases: heart rate, blood pressure, blood flow to somatic muscles, respiration
        2] decreases: peristalsis, blood supply to the viscera
        3] dilates pupils
        4] stimulates sweat glands
        5] stimulus is generalized and long-lasting - one preganglionic neuron activates up to 20 postganglionic neurons

3. Parasympathetic nervous system
    a] craniosacral - outflow is via cranial nerves and sacral spinal cord
        1] cranial nerves numbered 3, 7, 9 and 10
        2] sacral spinal nerves S2-S4