1. Your **peripheral nervous system** keeps things real by putting your brain in touch with the __________________________________ around you, and allowing it to ________________.

   a. __________________ respond to changes in temperature, __________________ react to light, __________________ pay attention to chemicals, and __________________ respond to pressure, touch, and vibration. ________________ fire only to indicate pain.

b. Why is pain an incredibly useful sensation?

   i. When stepping on a tack, what is the chain process of how your body responds? Describe briefly.

   

   ii. We all have the same __________________________, but you and I might have different ________________ for discomfort.

   iii. Some neurons have ___________________________ receptors that respond to a stretch in their membranes. Other neurons have ____________ ____________ receptors that open when the damaged skin tissue releases chemicals like histamine or potassium ions.

   iv. What role does the motor (efferent) division play in the tack response?

   v. ________________ are immediate reactions that can either be innate or learned, but don’t need much ____________________________ in the brain.

      1. ________________________________ specifically sense stretching.

   vi. In the brain, the ___________________________ identifies and localizes the pain, the ________________ ____________ registers emotional suffering, and the ____________________________ assigned meaning to the pain.