

- **Graded Potentials:** Variable-strength signals that occur when ion channels open/close in response to stimulus.
- **Action Potentials:** Brief depolarization event propagated along the _____ of a neuron.
- Transition from graded to action potential happens at _____ segment of axon.

A diagram of a neuron. On the left, a yellow square contains a brown neuron cell body (soma) with a bright yellow nucleus. To the right, a light blue square contains the axon, which is a long, thin structure composed of several blue rectangular segments. The axon ends in several branching, tree-like structures.

a) -70 mV.

b) -55 mV.

c) 0 mV.

d) +30 mV.

a) Action potentials; graded potentials. c) Depolarizations; hyperpolarizations.
b) Graded potentials; action potentials. d) Repolarizations; depolarizations.

- a) Graded potentials act as short distance signals.
- b) The magnitude of a graded potential is proportional to the magnitude of the stimulus.
- c) Graded potentials occur mainly in axons.
- d) Graded potentials can be depolarizing or hyperpolarizing.