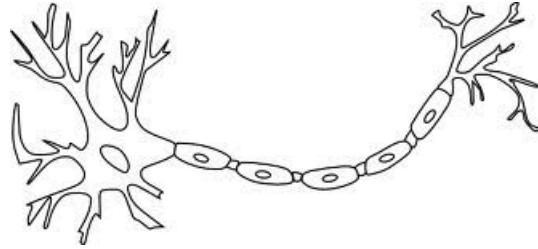


## Neuron Facts



### You Brain is ...

#### **Crowded**

You have approximately 100 billion neurons. That's the same as the number of stars in our Milky Way Galaxy.

#### **Complex**

The typical neuron is connected to thousands, which gives you over 1,000 trillion (1 quadrillion) synapses.

#### **Eager**

The rate of neuron growth during fetal development in utero is 250,000 neurons/minute.

#### **Fast**

A neuron can transmit a signal up to 250 mph.

#### **Big**

You have approximately 600 miles of neurons in your head, which store up to 1,000 terabytes of information.

#### **Industrious**

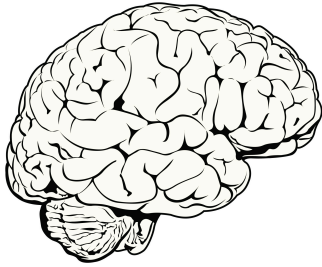
Your brain makes up 2% of your body mass, but uses 20% of your oxygen.

#### **Relentless**

The brain is much more active at night than during the day.

#### **Adaptable**

The cerebral cortex, the wrinkled outer part where consciousness resides, grows thicker as we learn.



# Neuron Fact Problems

**You Brain is ...**

## **Crowded**

100 billion equals 10 to what power?

## **Complex**

How long would it take to count all 1,000 trillion (1 quadrillion) synapses, if you counted one per second without stopping?

## **Eager**

At a rate of 250,000 neurons/minute during fetal development, how many days will it take to grow the 100 billion brain cells?

## **Fast**

At a rate 250 mph, how many seconds does it take for a signal to travel from the back of your brain to the front? (Assume a straight line of travel?)

## **Big**

If 100 billion cells have a total length of 600 miles, how long, in microns, is one neuron?

How many flash drives will it take to store the 1,000 terabytes of information in your brain?

## **Industrious**

Given that a brain makes up 2% of a person's body mass, how much does the typical human brain weigh?

## **Relentless**

What is the brain doing when it sleeps?

## **Adaptable**

Besides the cerebral cortex, what other parts of the brain build synapses when we learn math?