The Human Brain--Some Interesting Facts

The human brain weighs approximately *3 pounds,* and is the most complex biological structure in the known universe. Our brains are not just big--they're grotesquely huge. A typical mammal our size would have a brain only one-seventh as large.

Although estimates vary, the human brain contains about *100 billion neurons,* i.e. nerve cells, or about the same number as the stars in our Milky Way Galaxy.

Perhaps even more surprising is that in addition to the neurons, there are *10 times as many* support cells, known as *glia or neuroglia,* which serve to nourish and protect the brain, guide its development, and perhaps even modulate its activity.

The number of possible interconnections among our neurons, called *synapses,* is greater than the number of atomic particles in the entire universe.

But of course the brain is not organized in a haphazard or random fashion. The actual number of *synapses* in the human brain has been estimated at *100 trillion,* or an average of about *1,000 synapses per neuron:*
100 billion neurons x 1,000 synapses/neuron = 100 trillion synapses.

Lastly, the human brain can carry out about 10,000 trillion *operations/second.* By contrast, the 2004 world's most advanced supercomputer—IBM's ASCI Purple—performs only 100 trillion *operations/second.* Even the simplest task, e.g., tying shoes, requires an astonishing amount of sensory analysis, computation, and response to feedback.