Today we will be working with reflex hammers to record data that will help us understand what a reflex is. Keep this information with you to better understand reflexes during our notes. Each member of the group must complete this sheet.

 Activity: Patellar Reflex 

Section 1

In the first section we will test the brains cognitive speed when using readily available information. You will say one word and time the response between when the test subject says their first syllable. Choose three of the questions at random. Their response, right or wrong, is not important. This will give us the processing time of their neurons.

|  |  |
| --- | --- |
| Question | Time to Response |
| Name |  |
| Address |  |
| Birthday |  |
| Height |  |
| Weight |  |

Average response time: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Section 2

In the second section we are going to time the nerves ability to process complex tasks that require reasoning and judgment. You will ask a short question and time the response between when the test subject says their first response syllable. Choose three of the questions at random. Their response, right or wrong, is not important. This will give us the processing time of their neurons.

|  |  |
| --- | --- |
| Question | Time to Response |
| What is your favorite food? |  |
| What is the last lie you told you best friend? |  |
| Who is the nicest person in your family? |  |
| What is 12 divided by 3.5? |  |
| What is an ideal first date? |  |

Average response time: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Section 3

In this section we are going to try to understand the response time of the patellar reflex. Take the reflex hammer and tap on the patellar tendon. Record the amount of time between when the hammer hits and the movement of the leg.

|  |  |
| --- | --- |
| Trial | Time to Response |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |

Average response time: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lab Questions:

1. Were you able to get an accurate measurement of section 3? Why or why not?
2. Compare the times between the three different sections. What is the mathematical difference between all three?
3. Why does response time differ between all three sections?