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History Behind Simple Brain Exercises to Combat Memory Challenges

In 2012, I attended a conference of non-profit senior living providers. One session was a report about brain health exercises performed with residents in skilled nursing settings. This report found that focusing on the prefrontal cortex of the brain might help seniors stabilize and improve their cognitive functions. At the time, my mom, though living independently in her own home with my dad, was showing signs of cognitive decline: repeating herself, not remembering conversations, even getting lost in familiar areas.

I asked my mom to take a leap of faith with me and commit, daily, to a minimum of 30 minutes of simple mental exercises which would engage her "working memory." Research had identified that simple math done quickly, reading out loud, and handwriting were three ways which trigger greater brain activity in the prefrontal cortex and could support an improvement in brain function.

My mom adopted these simple mental exercises daily: reading out loud from books, magazines, or newspapers; handwriting in a diary; completing simple math problems timed for focus. Within less than 30 days, my mom's repeating was significantly reduced, her recall of conversations improved, and she was no longer getting lost in familiar places. As she continued the work, she was able to learn Mahjong, and even start teaching Bridge. It is years later, and she continues to progress well while still following the three-step program, allowing her to engage with and make memories with all seven of her grandchildren, a true gift.

Though there is no known cure at this time for diseases like Alzheimer's and other dementias, progress is achieved when symptoms can be pushed out five to ten years. This would be considered a win for many families. Following success with my mom, while I was working at an assisted living community in Seattle, a curriculum based on these same three approaches was created which also showed positive signs for those residents who engaged in the program on a consistent basis.

Now, a new curriculum called StrongerMemory is available from Goodwin Living(tm), a faith-based non-profit, and through the generous donations in support of the Goodwin Living Foundation.

In the pages to follow, you will find many math sheets designed for ease of completion along with writing topics recommended to inspire handwritten work. We encourage you to copy these pages for further use and share them with others.

Our goal with StrongerMemory by Goodwin Living is to positively support as many people as possible on their brain health journey.

All the best,

Rob Liebreich

Son, Husband, Father and President & CEO of Goodwin Living, an organization with the mission:

To support, honor, and uplift the lives of older adults and the people who care for them through a faith-based, nonprofit organization affiliated with the Episcopal Church.

P.S. Though there is no guarantee of cognitive improvement, there are also no negative side effects from trying StrongerMemory, as this is a non-pharmacological option (no drugs). So, give it a try today!

Build Better Brain Health with StrongerMemory

Your Brain with Normal Activity Your Brain with StrongerMemory





When we do simple activities, like looking out the window or watching a show, or even difficult math equations, brain scans teach us that only a few parts of our brain will light up with activity.

While it can be beneficial to only exercise a specific part of the brain, like when we solve difficult math problems, that alone will not do much to help our memory, recall and focus. When we read aloud, do simple math quickly and write by hand, the prefrontal cortex and wide areas of our brains light up, like the brighter light bulb above.

With StrongerMemory, we can activate our neural pathways and our working memory together.

This greatly improves our recall, memory and focus.

CALENDAR

Copy and use this sheet to track your daily progress – write down the amount of time you spend each day these exercises. It is best to engage in these exercises every day for 20 to 30 minutes, though even four to five times has shown to be beneficial

MONTH:

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY

Reading Out Loud

Directions:

Grab your favorite book, pick up the nearest magazine, read positive news stories – it's your choice. Just find something that you can read – out loud – for 10 minutes or more a day. You can even read to someone in your network of family and friends!



SECTION 2

Quick Math Sheets

Directions For Those Solving the Problems:

The object of completing these math pages is to create focus. The key is to just do the math without worrying about the right answers. The problems are intended to be simple and should not cause anxiety. If the math problems are causing you stress, feel free to repeat a previous sheet or return to an earlier packet instead.

Complete each page as fast as possible. The goal is to spend between 5-10 minutes a day doing these quick math problems. For most people, that is about 2-4 pages of math per day. If you'd like to track your progress, please use a timer to track the time it takes you to complete each sheet. There is a place to write your time below the short brain fact on each page.

If you are unable to write the answers down by hand, you can read the problem and say the answer aloud. The main goal here is speed, so move through the problems quickly. We suggest you make several blank copies of each page before your first use so you can re-do the exercises.

Directions For Those Supporting the Process:

Having someone to cheer on the daily efforts either in person or remotely is helpful and encourages one to stay engaged with the work. If you are supporting someone doing these packets, your tasks are twofold:

- 1. Cheer on the effort! Do not correct an incorrect problem. Just move on to the next one.
- 2. Positive feedback! Be a supportive coach and highlight things well done.

STAGE 1:

Please complete these math questions as quickly as possible

The brain is about 2% of the body's weight.

2% dehydration affects your attention, memory, and cognition.

The brain weighs about three pounds.

The temporal lobe generates memories and emotions.

Each neuron can transmit 1,000 nerve impulses per second.

Babies have big heads to hold rapidly growing brains.

A 2-year-old's brain is 80% of adult size.

The brain generates about 20 watts of electricity.

STAGE 2:

Please complete these math questions as quickly as possible

The brain uses about 20% of our body's energy.

Brain information travels up to 268 miles per hour.

The average brain generates 48.6 thoughts per minute.

Every minute 1,000 milliliters of blood flow through the brain.

The parietal lobe is involved with sensory process, attention, and language.

In general, men's brains are 10% bigger than women.

The prefrontal cortex covers the front part of the frontal lobe.

The hippocampus, strongly linked to memory, is larger in women.

Albert Einstein's brain weighed 2.71 pounds.

Your brain's pattern of connectivity is as unique as your fingerprints.

The brain produces a half cup of fluid every day.

STAGE 3:

Please complete these math questions as quickly as possible

$$100$$
 100
 100
 ± 1
 ± 2
 ± 3
 ± 4
 100
 100
 100
 100
 ± 5
 ± 6
 ± 7
 ± 8
 100
 200
 200
 200
 ± 9
 ± 1
 ± 2
 ± 3
 200
 200
 200
 200
 ± 4
 ± 5
 ± 6
 ± 7

95% of your decisions take place in your subconscious mind.

<u>+2</u>

Time of completion:

<u>+3</u>

<u>+1</u>

<u>+8</u>

Eyeballs are a direct physical extension of the brain.

Time of completion: _____

300

<u>+7</u>

The cerebral cortex grows thicker as you learn to use it.

Time of completion:

800

<u>+2</u>

$$700$$
 700
 700
 ± 4
 ± 5
 ± 6
 ± 7
 700
 700
 600
 600
 ± 8
 ± 9
 ± 5
 ± 6
 600
 600
 600
 500
 ± 7
 ± 8
 ± 9
 ± 6
 500
 500
 500
 400
 ± 7
 ± 8
 ± 9
 ± 7
 400
 400
 300
 300

REM sleep stands for Rapid Eye Movement sleep.

<u>+8</u>

Time of completion: _____

<u>+9</u>

<u>+9</u>

<u>+8</u>

$$1000$$
 1000
 1000
 1000
 ± 1
 ± 2
 ± 3
 ± 4
 1000
 1000
 1000
 1000
 ± 5
 ± 6
 ± 7
 ± 8
 1000
 1100
 1100
 1100
 ± 9
 ± 1
 ± 2
 ± 3
 1100
 1100
 1100
 ± 100
 ± 4
 ± 5
 ± 6
 ± 7
 1100
 ± 100
 ± 100
 ± 100
 ± 8
 ± 1
 ± 2
 ± 3

The human brain has 100,000 miles of blood vessels.

1200
 1200
 1200
 1200

$$\pm 4$$
 ± 5
 ± 6
 ± 7

 1300
 1300
 1300
 1300

 ± 1
 ± 2
 ± 3
 ± 4

 1300
 1300
 1400
 1400

 ± 5
 ± 6
 ± 1
 ± 2

 1400
 1400
 1500
 1500

 ± 3
 ± 4
 ± 5
 ± 1

 1500
 1500
 1500
 1600

 ± 2
 ± 3
 ± 4
 ± 1

Each heartbeat carries 20-25% of your blood to the brain.

$$1600$$
 1600
 1700
 1700
 ± 2
 ± 3
 ± 1
 ± 2
 1800
 1800
 1800
 ± 4
 1800
 1800
 ± 8
 ± 8
 1800
 ± 1800
 ± 1800

The brain's gray matter is made up of neurons, which transmit signals.

1900
 1900
 1700
 1700

$$\pm 8$$
 ± 9
 ± 3
 ± 4

 1700
 1700
 1700
 1700

 ± 5
 ± 6
 ± 7
 ± 8

 1700
 1600
 1600
 1600

 ± 9
 ± 4
 ± 5
 ± 6

 1600
 1600
 1500
 ± 5

 1500
 1500
 1500
 1500

 ± 6
 ± 7
 ± 8
 ± 9

There are 10,000 specific types of neurons in the brain.

$$500$$
 600
 700
 800
 ± 5
 ± 4
 ± 3
 ± 2
 900
 100
 200
 300
 ± 1
 ± 9
 ± 8
 ± 7
 400
 1000
 1000
 1000
 ± 6
 ± 1
 ± 2
 ± 3
 1000
 1000
 1000
 1000
 ± 4
 ± 5
 ± 6
 ± 7
 1000
 1000
 100
 200
 ± 8
 ± 9
 ± 10
 ± 10

The prefrontal cortex is located at the very front of the brain.

Exercise protects memory and thinking skills.

Time of completion:

Alois Alzheimer is credited for identifying Alzheimer's in 1906.

STAGE 4:

100	100	100	100
<u>+10</u>	<u>+20</u>	<u>+30</u>	+40
100	100	100	100
+50	<u>+60</u>	<u>+70</u>	<u>+80</u>
100	200	200	200
<u>+90</u>	<u>+10</u>	<u>+20</u>	+30
200	200	200	200
<u>+40</u>	<u>+50</u>	<u>+60</u>	<u>+70</u>
200	300	300	300
<u>+80</u>	<u>+10</u>	<u>+20</u>	+30

The first individual with Alzheimer's Disease was 50 years old.

The human brain has the same consistency as tofu.

Beta Brainwaves = concentration, conversation, or focusing on a task.

$$700$$
 700
 700
 $+40$
 $+50$
 $+60$
 $+70$
 700
 700
 600
 600
 $+80$
 $+90$
 $+50$
 $+60$
 600
 600
 600
 500
 $+70$
 $+80$
 $+90$
 $+60$
 400
 $+80$
 $+90$
 $+80$
 $+90$

Your brain can actually rebuild itself following trauma.

1000	1000	1000	1000
<u>+10</u>	<u>+20</u>	<u>+30</u>	<u>+40</u>
1000	1000	1000	1000
<u>+50</u>	<u>+60</u>	<u>+70</u>	<u>+80</u>
1000	1100	1100	1100
<u>+90</u>	<u>+10</u>	<u>+20</u>	<u>+30</u>
1100	1100	1100	1100
<u>+40</u>	<u>+50</u>	<u>+60</u>	<u>+70</u>
1100	1200	1200	1200
<u>+80</u>	<u>+10</u>	<u>+20</u>	<u>+30</u>

Learning new things creates physical changes in brain structure.

1200	1200	1200	1200
<u>+40</u>	<u>+50</u>	<u>+60</u>	<u>+70</u>
1300	1300	1300	1300
<u>+10</u>	<u>+20</u>	<u>+30</u>	<u>+40</u>
1300	1300	1400	1400
<u>+50</u>	<u>+60</u>	<u>+10</u>	<u>+20</u>
1400	1400	1400	1500
<u>+30</u>	<u>+40</u>	<u>+50</u>	<u>+10</u>
1500	1500	1500	1600
<u>+20</u>	<u>+30</u>	<u>+40</u>	<u>+10</u>

It takes .2 seconds for your brain to understand light that reaches your eye.

1600	1600	1700	1700
<u>+20</u>	<u>+30</u>	<u>+10</u>	<u>+20</u>
1800	1800	1800	1800
<u>+10</u>	<u>+20</u>	<u>+30</u>	<u>+40</u>
1800	1800	1800	1800
<u>+50</u>	<u>+60</u>	<u>+70</u>	<u>+80</u>
1800	1900	1900	1900
<u>+90</u>	<u>+10</u>	<u>+20</u>	<u>+30</u>
1055			
1900	1900	1900	1900
<u>+40</u>	<u>+50</u>	<u>+60</u>	<u>+70</u>

Brains can process an image the eyes have only seen for 13 milliseconds.

1900	1900	1700	1700
<u>+80</u>	<u>+90</u>	<u>+30</u>	<u>+40</u>
1700	1700	1700	1700
<u>+50</u>	+60	+70	<u>+80</u>
+30	<u>+00</u>	+70	+80
1700	1600	1600	1600
+90	+40	<u>+50</u>	+60
<u>. 70</u>	<u>· 10</u>	<u>· 00</u>	<u></u>
1600	1600	1600	1500
+70	<u>+80</u>	+90	+50
1500	1500	1500	1500
<u>+60</u>	<u>+70</u>	<u>+80</u>	<u>+90</u>

The brain has the capacity to change throughout the lifetime.

Time of completion:

Brain plasticity is the ability of the brain to change and grow.

$$100$$
 200
 300
 400
 $+60$
 $+50$
 $+40$
 $+30$
 500
 600
 100
 200
 $+20$
 $+10$
 $+70$
 $+60$
 300
 400
 500
 600
 $+50$
 $+40$
 $+30$
 $+20$
 400
 500
 600
 700
 $+50$
 $+40$
 $+30$
 $+20$

Neurogenesis is the process of forming new brain cells.

Time of completion:

The cerebrum is the largest part of the brain.

STAGE 5:

Please complete these math questions as quickly as possible

101	102	103	104
<u>+10</u>	<u>+20</u>	<u>+30</u>	<u>+40</u>

The cerebrum controls movement and temperature.

$$304$$
 305 306 307 $+40$ $+50$ $+60$ $+70$
 401 402 403 404 $+10$ $+20$ $+30$ $+40$
 405 406 501 502 $+50$ $+60$ $+10$ $+20$
 503 504 505 601 $+30$ $+40$ $+50$ $+10$
 602 603 604 701 $+20$ $+30$ $+40$ $+10$

The brain has no pain receptors and feels no pain.

$$702$$
 703
 801
 802
 $+20$
 $+30$
 $+10$
 $+20$
 901
 902
 903
 904
 $+10$
 $+20$
 $+30$
 $+40$
 905
 906
 907
 908
 $+50$
 $+60$
 $+70$
 $+80$
 806
 807
 808
 809
 $+60$
 $+70$
 $+80$
 $+90$

Brain freeze is referred pain emanating from the roof of the mouth.

$$704$$
 705
 706
 707
 $+40$
 $+50$
 $+60$
 $+70$
 708
 709
 605
 606
 $+80$
 $+90$
 $+50$
 $+60$
 607
 608
 609
 506
 $+70$
 $+80$
 $+90$
 $+60$
 507
 508
 509
 407
 $+70$
 $+80$
 $+90$
 $+70$
 408
 409
 308
 309
 $+80$
 $+90$
 $+80$
 $+90$

If the first and last letter is in the right spot, the brain can correctly read it.

1001	1002	1003	1004
<u>+10</u>	<u>+20</u>	<u>+30</u>	<u>+40</u>
1005	1006	1007	1008
<u>+50</u>	<u>+60</u>	<u>+70</u>	<u>+80</u>
1009	1101	1102	1103
<u>+90</u>	<u>+10</u>	<u>+20</u>	<u>+30</u>
1104	1105	1106	1107
<u>+40</u>	<u>+50</u>	<u>+60</u>	<u>+70</u>
1108	1201	1202	1203
<u>+80</u>	<u>+10</u>	<u>+20</u>	<u>+30</u>

Declarative memory covers everyday facts and events.

1204	1205	1206	1207
<u>+40</u>	<u>+50</u>	<u>+60</u>	<u>+70</u>
1301	1302	1303	1304
<u>+10</u>	<u>+20</u>	<u>+30</u>	+40
1305	1306	1401	1402
+50	<u>+60</u>	+10	+20
1403	1404	1405	1501
+30	<u>+40</u>	<u>+50</u>	<u>+10</u>
1502	1503	1504	1601
+20	+30	+40	+10

Episodic memories are specific personal experiences.

1602	1603	1701	1702
<u>+20</u>	<u>+30</u>	<u>+10</u>	<u>+20</u>
4004	4000	4000	4004
1801	1802	1803	1804
<u>+10</u>	<u>+20</u>	<u>+30</u>	<u>+40</u>
1805	1806	1807	1808
<u>+50</u>	<u>+60</u>	<u>+70</u>	<u>+80</u>
1809	1901	1902	1903
<u>+90</u>	<u>+10</u>	<u>+20</u>	<u>+30</u>
1904	1905	1906	1907
+40	+50	+60	+70

Sensations and thoughts are the result of signals passed through neurons.

1908	1909	1703	1704
<u>+80</u>	<u>+90</u>	<u>+30</u>	<u>+40</u>
1705	1706	1707	1708
<u>+50</u>	<u>+60</u>	<u>+70</u>	<u>+80</u>
			
1709	1604	1605	1606
+90	+40	<u>+50</u>	<u>+60</u>
<u></u>		_ <u></u>	
1607	1608	1609	1505
<u>+70</u>	<u>+80</u>	<u>+90</u>	<u>+50</u>
4-04	4-0-	4.700	4
1506	1507	1508	1509
+60	+70	+80	+90

The brain makes the most connections before the age of 10.

The brain's storage capacity is virtually unlimited.

$$106$$
 205
 304
 403
 $+60$
 $+50$
 $+40$
 $+30$
 502
 601
 107
 206
 $+20$
 $+10$
 $+70$
 $+60$
 305
 404
 503
 602
 $+50$
 $+40$
 $+30$
 $+20$
 405
 $+80$
 $+70$
 $+60$
 405
 $+50$
 $+40$
 $+30$
 $+20$

The brain has more processing power than any computer.

Reading aloud to children promotes brain development.

STAGE 6:

111	112	113	114
<u>+10</u>	<u>+20</u>	<u>+30</u>	<u>+40</u>
115	116	117	118
<u>+50</u>	<u>+60</u>	<u>+70</u>	<u>+80</u>
119	211	212	213
<u>+90</u>	<u>+10</u>	<u>+20</u>	<u>+30</u>
214	215	216	217
<u>+40</u>	<u>+50</u>	<u>+60</u>	<u>+70</u>

Serotonin helps regulate sleep, appetite, moods, and inhibits pain.

312

<u>+20</u>

Time of completion:

313

<u>+30</u>

311

<u>+10</u>

218

<u>+80</u>

More than 100,000 chemical reactions occur in the brain every second.

Time of completion: _____

317

<u>+70</u>

$$712$$
 713
 811
 812
 $+20$
 $+30$
 $+10$
 $+20$
 911
 912
 913
 914
 $+10$
 $+20$
 $+30$
 $+40$
 915
 916
 917
 918
 $+50$
 $+60$
 $+70$
 $+80$
 919
 813
 814
 815
 $+90$
 $+30$
 $+40$
 $+50$

You will lose consciousness if the brain loses blood for 8-10 seconds.

818

+80

Time of completion: _____

819

+90

817

<u>+70</u>

816

<u>+60</u>

$$714$$
 715
 716
 717
 $+40$
 $+50$
 $+60$
 $+70$
 718
 719
 615
 616
 $+80$
 $+90$
 $+50$
 $+60$
 617
 618
 619
 516
 $+70$
 $+80$
 $+90$
 $+60$
 517
 518
 519
 417
 $+70$
 $+80$
 $+90$
 $+70$
 418
 419
 318
 319
 $+80$
 $+90$
 $+80$
 $+90$

Your brain generates enough energy to power a lightbulb.

1011	1012	1013	1014
<u>+10</u>	<u>+20</u>	<u>+30</u>	<u>+40</u>
1015	1017	1017	1010
1015	1016	1017	1018
<u>+50</u>	<u>+60</u>	<u>+70</u>	<u>+80</u>
1010	4444	1110	1110
1019	1111	1112	1113
<u>+90</u>	<u>+10</u>	<u>+20</u>	<u>+30</u>
1111	444	4447	444
1114	1115	1116	1117
<u>+40</u>	<u>+50</u>	<u>+60</u>	<u>+70</u>
1118	1211	1212	1213
<u>+80</u>	<u>+10</u>	<u>+20</u>	+30

Leafy greens rich in Vitamin K & folate are good for the brain.

Time of completion:

1217	1216	1215	1214
<u>+70</u>	+60	<u>+50</u>	<u>+40</u>
1314	1313	1312	1311
<u>+40</u>	<u>+30</u>	<u>+20</u>	<u>+10</u>
1412	1411	1316	1315
+20	+10	<u>+60</u>	<u>+50</u>
1511	1415	1414	1413
<u>+10</u>	+50	<u>+40</u>	+30
1611	1514	1513	1512
+10	+40	+30	+20

You can't tickle yourself because your brain expects your touch.

$$1612$$
 1613
 1711
 1712
 $+20$
 $+30$
 $+10$
 $+20$
 1811
 1812
 1813
 1814
 $+10$
 $+20$
 $+30$
 $+40$
 1815
 1816
 1817
 1818
 $+50$
 $+60$
 $+70$
 $+80$
 1819
 1911
 1912
 1913
 $+90$
 $+10$
 $+20$
 $+30$
 1914
 1915
 1916
 1917
 $+40$
 $+50$
 $+60$
 $+70$

The brain may retain one quadrillion bits of information in a lifetime.

Time of completion:

1918	1919	1713	1714
<u>+80</u>	<u>+90</u>	<u>+30</u>	<u>+40</u>
1715	1716	1717	1718
+50	+60	<u>+70</u>	<u>+80</u>
1719	1614	1615	1616
<u>+90</u>	<u>+40</u>	<u>+50</u>	<u>+60</u>
1617	1618	1619	1515
<u>+70</u>	<u>+80</u>	<u>+90</u>	<u>+50</u>
1516	1517	1518	1519
+60	<u>+70</u>	<u>+80</u>	<u>+90</u>

The cerebrum makes up 85% of the brain's weight.

The skull is only as thick as three coins on top of the other.

+101

Time of completion: _____

+101

+90

<u>+80</u>

$$116$$
 215
 314
 413
 $+60$
 $+50$
 $+40$
 $+30$
 512
 611
 117
 216
 $+20$
 $+10$
 $+70$
 $+60$
 315
 414
 513
 612
 $+50$
 $+40$
 $+30$
 $+20$
 415
 $+80$
 $+70$
 $+60$
 415
 $+40$
 $+30$
 $+20$

Your brain is 60% white matter and 40% gray matter.

Time of completion:

White matter is made up of dendrites and axons.

STAGE 7:

Please complete these math questions as quickly as possible

111	112	113	114
<u>+11</u>	<u>+22</u>	+33	+44
115	116	117	118
+55	<u>+66</u>	<u>+77</u>	+88
119	211	212	213
+99	<u>+11</u>	<u>+22</u>	+33
214	215	216	217
<u>+44</u>	+55	<u>+66</u>	<u>+77</u>
218	311	312	313
+88	<u>+11</u>	+22	+33

Dendrites and axons create the network of neural communication.

Laughing requires activity in five different areas of the brain.

The brain area for smell also controls emotions and memories.

714	715	716	717
<u>+44</u>	<u>+55</u>	<u>+66</u>	<u>+77</u>
718	719	615	616
+88	+99	<u>+55</u>	<u>+66</u>
617	618	619	516
<u>+77</u>	<u>+88</u>	<u>+99</u>	<u>+66</u>
517	518	519	417
<u>+77</u>	<u>+88</u>	+99	<u>+77</u>
418	419	318	319
+88	+99	<u>+88</u>	+99

Flavonoids in berries and cacao help improve memory.

1011	1012	1013	1014
<u>+11</u>	<u>+22</u>	<u>+33</u>	<u>+44</u>
1015	1016	1017	1018
<u>+55</u>	<u>+66</u>	<u>+77</u>	<u>+88</u>
1019	1111	1112	1113
<u>+99</u>	<u>+11</u>	<u>+22</u>	<u>+33</u>
1114	1115	1116	1117
+44	<u>+55</u>	<u>+66</u>	<u>+77</u>
1118	1211	1212	1213
<u>+88</u>	<u>+11</u>	<u>+22</u>	<u>+33</u>

Babies sleep 16-18 hours per day due to their rapid brain growth.

1214	1215	1216	1217
<u>+44</u>	<u>+55</u>	<u>+66</u>	<u>+77</u>
1311	1312	1313	1314
<u>+11</u>	<u>+22</u>	<u>+33</u>	+44
1315	1316	1411	1412
<u>+55</u>	<u>+66</u>	<u>+11</u>	<u>+22</u>
1413	1414	1415	1511
+33	<u>+44</u>	<u>+55</u>	<u>+11</u>
1512	1513	1514	1611
+22	+33	+44	+11

5 minutes after a dream, 50% of the dream is forgotten.

1612 +22	1613 +33	1711 +11	1712 +22
1811	1812	1813	1814
<u>+11</u>	<u>+22</u>	<u>+33</u>	<u>+44</u>
1815	1816	1817	1818
<u>+55</u>	<u>+66</u>	<u>+77</u>	<u>+88</u>
1819	1911	1912	1913
<u>+99</u>	<u>+11</u>	<u>+22</u>	<u>+33</u>
1914	1915	1916	1917
<u>+44</u>	<u>+55</u>	<u>+66</u>	<u>+77</u>

10 minutes after a dream, over 90% is forgotten.

1714	1713	1919	1918
<u>+44</u>	<u>+33</u>	<u>+99</u>	<u>+88</u>
1718	1717	1716	1715
<u>+88</u>	<u>+77</u>	<u>+66</u>	+55
1616	1615	1614	1719
<u>+66</u>	<u>+55</u>	<u>+44</u>	+99
1515	1619	1618	1617
<u>+55</u>	<u>+99</u>	<u>+88</u>	<u>+77</u>
1519	1518	1517	1516
<u>+99</u>	<u>+88</u>	<u>+77</u>	+66

12% of people dream only in black and white.

If you are snoring, you are not dreaming.

116	215	314	413
+66	+55	+44	+33
512	611	117	216
+22	<u>+11</u>	<u>+77</u>	+66
315	414	513	612
+55	<u>+44</u>	+33	+22
711	118	217	316
+11	+88	<u>+77</u>	+66
415	514	613	712
+55	+44	<u>+33</u>	+22

Two-thirds of your dreams are only visual.

1101	2202	1101	2202
<u>+2202</u>	<u>+1101</u>	+3303	<u>+2202</u>
3303	1101	2202	3303
<u>+1101</u>	<u>+4404</u>	+3303	<u>+2202</u>
4404	1101	2202	3303
+1401	+5505	+4404	+3303
4404	5505	1101	2202
+2202	+1101	+1101	+1101
12202	<u>·1101</u>	<u> </u>	<u>·1101</u>
3303	4404	5505	6606
	_		
<u>+1101</u>	<u>+1101</u>	<u>+1101</u>	<u>+1101</u>

Few dreams involve sounds, movement, taste or smell.

STAGE 8:

Please complete these math questions as quickly as possible

In 2000 B.C., the first brain surgery was performed by drilling a hole in the skull.

The prefrontal cortex is divided into three parts.

The medial prefrontal cortex controls attention & motivation.

The orbital prefrontal cortex controls impulses.

The lateral prefrontal cortex creates and executes plans.

$$14+4=$$

The first description of the brain is found in 1700 B.C.

Aristotle believed the center of thought was the heart.

In 1811 Charles Bell described how each of the senses had a spot in the brain.

Paul Broca determined the location of the speech center of the brain in 1862.

In 2013, Obama announced the Brain Research (BRAIN) initiative.

"Don't let your brain interfere with your heart"

– Einstein

STAGE 9:

Please complete these math questions as quickly as possible

The mind is the most capricious of insects- flitting, fluttering.

- Virginia Woolf

The more you use your brain, the more brain you will have to use – George A. Dorsey

The human mind should be like a good hotel- open the year round
- William Lyon Phelps

Our own brain, our own heart is our temple.

– Dalai Lama

A new challenge keeps the brain kicking & the heart ticking – E.A. Bucchianeri

$$14+4=$$

Modern technology makes the human brain evolve.

We use a full 100% of our brains.

The brain is surrounded in 125-150ml of protective liquid.

Time of completion:

17+4=

Every brain cell needs constant fueling with glucose.

Music helps the brain produce dopamine and endorphins.

Exercise is the best food for the brain.

STAGE 10:

Please complete these math questions as quickly as possible

A baby's brain consumes 60% of its entire energy.

The child's brain is like a sponge, accumulating information quickly.

The father of modern neurology is Jean-Martin Charcot.

Research suggests yawning cools down the brain.

Sleep deprivation can raise brain temperature.

The smell of chocolate increases theta brain waves, triggering relaxation.

Sphenopalatine ganglioneuralgia is the scientific term for brain freeze.

There is no Left Brain/Right Brain divide- they work together.

Half of your genes describe your brain.

Mental breaks increase productivity & replenish attention.

Brain age decreases by .95 years for each year of education.

STAGE 11

Please complete these math questions as quickly as possible

Climbing the stairs regularly can help decrease your brain age.

Turmeric may improve memory and decrease depression.

Sensory info flows into the brain, and motor info flows out.

The brain has enough memory to hold three million hours of television.

35 years after leaving school, people can still identify 90% of their classmates.

Consecutive sleep allows the brain to consolidate and store memories.

The average intelligence has risen 20 IQ points since 1950.

Close supportive relationships stimulate neuroplasticity and learning.

When looking at a crowd, we can only recognize 2 faces at a time.

The average person has about 50,000 words in their mind.

It takes about 600 milliseconds for someone to find the right word.

STAGE 12:

Please complete these math questions as quickly as possible

Even short exercise can boost decision-making and focus.

Being kind stimulates the production of serotonin chemicals in the brain.

10

<u>-1</u>

<u>-0</u>

Doing an act of kindness lights up the same part of the brain as receiving kindness from others.

Endorphins are the brain's natural painkiller.

The human brain is the only object that can contemplate itself.

The brain only feels pleasure and has no pain receptors.

Migraine and headache pain arise in the meninges (the brain's covering).

The brain is the hottest part of the body.

Neurons lining the stomach and intestines operate independently.

The ability to create new brain connections occurs throughout life.

Healthy neurons have smooth branches called dendrites.

SECTION 3

Handwriting Exercises

Directions:

Handwrite your answers to the following writing suggestions on a separate sheet of paper. If you don't have an answer to the suggestion, write about anything that comes to mind. Take your time. This is for your own use. No need to worry about correct spelling or proper grammar.

Once you complete the answer, please read your work out loud.



- 1. Write about what you like to do for fun.
- 2. Do you think it is more important to work hard or to have fun? Is it possible to do both?
- 3. What is the most unusual thing you have ever done?
- 4. If you could go on a trip tomorrow, where would you go, who would you go with, and why that location?
- 5. What inspires you what is something that has inspired you to learn more, or to become a better person?
- 6. What is more valuable, creativity or intelligence? Why?

- 7. What was your first job? What did you like or dislike about it?
- 8. Did you have a favorite job? What was it?
- 9. What is a job that sounds interesting to you?
- 10. Write about what you would do on a sunny day:
- 11. Describe what a perfect day would be like for you:
- 12. What are some of your greatest achievements?
- 13. If you could relive one day in your life, which would it be and why?

- 14. How would your friends and family describe you?
- 15. In your life, what has been your greatest "gift"?
- 16. What is your heritage? Do you know where your parents and grandparents were from?
- 17. Do you identify with your heritage? Do you practice any traditions related to it?
- 18. Do you think it's important to remember where you are from and to teach following generations about it?
- 19. Do you think it's important to learn about other cultures? Why or why not?

- 20. In your opinion, what is a culture that is most interesting to you?
- 21. Write about something you learned recently that was interesting to you:
- 22. Write about something you would like to learn more about:
- 23. Have your interests changed over your lifetime? How?
- 24. Do you think it's important to set goals? Why or why not?
- 25. What are some things you need to be happy and content?

- 26. What is your favorite season? Why do you like it?
- 27. What are some activities you enjoy doing when it's cold outside?
- 28. Have you traveled a lot? Do you prefer to visit cities, beaches, mountains, other countries?
- 29. Name a film star you admired in your youth.
- 30. What did you do with your first paycheck?
- 31. Describe a historical event you remember clearly.

- 32. What is the best age to be and why?
- 33. Did you grow up visiting the beach? Write about a time you went to the beach... what do you remember?
- 34. Write about a place you enjoy visiting.
- 35. Do you have any memorable experiences of a trip that didn't go as planned? What happened?
- 36. Write about something you've done that others might not know about you.
- 37. Write about something you can't live without.

- 38. Write about the best place you've lived. What did you like about it?
- 39. What are your favorite books and why?
- 40. What are your favorite movies and why?
- 41. What are your favorite activities and why?
- 42. Write about an event you remember hearing about on the news during your lifetime. Was there something that made an impact on you?
- 43. Was there a popular culture icon, celebrity, or politician that you admired earlier in life? How about now?

- 44. What is a trait that you value in other people? Is there something you admire in others or look for in friends?
- 45. Write about a game you played growing up.
- 46. Did you enjoy playing indoors or outdoors as a kid? What kinds of things did you do for fun?
- 47. Did you have any hobbies growing up? What were they?
- 48. Write about the neighborhood you grew up in. Was it in a small town or a big city?
- 49. What are some of your interests? Do you have any favorite subjects to learn about?

- 50. Do you have siblings? How many? What are their names? What is the best thing about having siblings?
- 51. What is something you've done in your life that may have impacted others?
- 52. Who or what in your life helped make you the person you are today?
- 53. Are you a morning person or a night person? Has that changed over your life?
- 54. What are some things you like to do when you have free time?
- 55. Have you ever had to overcome a challenge?

- 56. Write about a time you accomplished something you set out to do.
- 57. What motivates you or inspires you?
- 58. What is your favorite city? What do you like about it?
- 59. Where are some places that you have lived?
- 60. Have you moved around a lot or lived in one area? What was your best moving story?
- 61. Have you ever had a role model in life? Who was it? Why were they your role model?
- 62. Who or what has had a strong influence on your life?

- 63. What is a quality or trait that you value in other people?
- 64. What did you like/not enjoy about your first airplane ride? Where did you go?
- 65. What is the name of your favorite pet? What did you like to do with your favorite pet?
- 66. Who was your favorite teacher? What subject did they teach? Why were they your favorite teacher?
- 67. Did you go camping growing up? What was your favorite thing about camping? What was your least favorite thing about camping?

- 68. What was your first car that you owned? Did it have a name? What was your favorite adventure with the car?
- 69. How many languages do you speak? Was there a time where people were speaking and you wish you understood what they were saying?
- 70. What was your favorite chore growing up and why?
- 71. If you had your own flag, what would it be?
- 72. When you wake in the morning, what is your goal for the day?
- 73. If you won \$1 million dollars, what would you do with the winnings?

- 74. If you could solve one issue in the world, what would it be and why?
- 75. Have you ever played a musical instrument and if so, what was it?
- 76. What is your most memorable moment with this instrument?
- 77. What is your favorite musical and why?
- 78. If you could eat one food for a year, what would it be and why?
- 79. What was your favorite gift you received as a child?

- 80. What was your favorite gift you received as an adult?
- 81. If you were a superhero character, what would your name be and what superpower would you have?
- 82. What was your favorite swimming moment growing up?
- 83. What was the name of and your favorite adventure with your stuffed animal?
- 84. What was the greatest holiday gift you ever received and why?

- 85. What was your favorite volunteer experience and why?
- 86. If you could make your own wine or beer, what kind would you make, and what would you call it and why?
- 87. What is your favorite sports team memory of all time?
- 88. Where were you when we landed on the moon in 1969? What stands out about the moment?
- 89. What planet would you like to visit and why?

- 90. If you could make your own Hollywood movie, what would the title be and what would it be about?
- 91. If you could own your own restaurant, what would be your specialty and why?
- 92. Who was your favorite relative who was not your parents or siblings and why?
- 93. If you could go back in time, what time would you go back to and why?
- 94. Tell me about your greatest day in the snow.
- 95. Write about your first love.
- 96. Write about your first kiss.

- 97. If you were an animal, what animal would you be and why?
- 98. If you could choose one way to be famous in the world between being a famous sports star/Hollywood star/Nobel Prize winner, which would you choose and why?
- 99. What is one thing you have yet to do in your life that you would like to complete?
- 100. What did you do during the summertime when you were growing up?
- 101. What was your favorite song in high school?
- 102. Do you have a morning routine? What are some things you like to do every day?

- 103. What is the most unusual food you have eaten? Did you like it? What was the occasion?
- 104. What is the name of your favorite pet? What did you like to do with your favorite pet?
- 105. If you were to have a mantra, what would it be and why?
- 106. What is one way you have paid it forward to a stranger?
- 107. What is your favorite exercise to do and why?
- 108. What is your favorite musical and why?

- 109. What is your favorite social activity to attend and why?
- 110. What items do you think a perfect picnic must have?
- 111. What one world problem would you solve and how?
- 112. What type of books do you prefer--fiction, non-fiction, mystery, thrillers, sci-fi, etc.? Why?
- 113. What was a spiritual moment in your life?
- 114. What was your first car that you owned? Did it have a name? What was your favorite adventure with the car?

- 115. How old were you when you first knew what you wanted to do with your life? How did it evolve?
- 116. Where were you when we landed on the moon in 1969? What stands out about the moment?
- 117. Write about the things you remember most about your mother
- 118. What are the characteristics of a hero?
- 119. Write from the perspective of a mouse going down a hole.
- 120. Write about your favorite Thanksgiving memory.

- 121. Write about your favorite Birthday memory.
- 122. Write about your favorite Birthday present you ever received.
- 123. Write about your favorite Birthday present you gave to someone else.
- 124. Write about your favorite holiday tradition.
- 125. Write about when you learned to drive a car.
- 126. If you had to teach one class in either high school or college, what would it be and why?
- 127. Write about when you learned to swim.
- 128. Write about when you learned to ride a bike.

- 129. If you were an insect, what insect would you be and why?
- 130. What is your favorite breakfast and why?
- 131. If you could choose to be any profession for just a day, what would it be?
- 132. What is the most unique drink you ever had, and where were you when you drank it?
- 133. What is the best memory of a wedding you attended?
- 134. What was one of the best sleepovers as a kid you ever had?
- 135. What is a favorite restaurant of yours and why?

- 136. If you could only eat one dessert for the rest of your life, what would it be and why?
- 137. Write about when you were the healthiest in your life.
- 138. If you could star in any television show, which one would it be and why?
- 139. What was your favorite television show to watch and why?
- 140. If you had to tell a stranger about the most important thing about you, what would it be and why?
- 141. If you could eat just one kind of fruit, what would it be and why?

- 142. If you could eat just one kind of vegetable, what would it be and why?
- 143. If you could stop one thing in this world from happening, what would it be and why?
- 144. Do you believe in aliens and UFO's?
- 145. Write about a time where you experienced the greatest joy.
- 146. Write about your thoughts on whether you think there is an afterlife
- 147. What do you think is the key to living a meaningful life?
- 148. Do you believe that there is a higher power?

- 149. If you had \$1 million to give away, to which cause would you give it?
- 150. If you had to live in another country for one year, where would it be and why?
- 151. What would be the title of your song that describes your life, and why that title?
- 152. If you had the chance to create a new holiday, what would it be and why?
- 153. If you could say "Thank you" to just one person in your life, who would it be and why?
- 154. Write about the first time you saw the ocean; how did it make you feel?

- 155. Write about a time where had an unexpected change?
- 156. What was your favorite magazine to read and why?
- 157. What is your favorite type of art? And why?
- 158. What is your favorite card game to play and why?
- 159. Write about your favorite piece of furniture.
- 160. Write a letter to yourself 1 year from now.
- 161. Write about your favorite summer season memory.

- 162. Write about your favorite winter season memory.
- 163. Write about your favorite fall season memory.
- 164. Write about the things you remember most about your father.
- 165. Write about your favorite New Year's Eve celebration.
- 166. What is a New Year goal that you have?
- 167. If you could write just one love letter to someone today, who would it be to and why?
- 168. Describe your ideal vacation.

- 169. Describe your ideal home / place to live.
- 170. If you were asked to teach one subject to a group of 1st graders, what would it be and why?
- 171. If you were a flower, what kind of flower would you be and why?
- 172. If you could talk to any animal, what animal would you talk to and what would you ask them?
- 173. If you opened a new business today, what kind of business would you open and why?
- 174. Describe a rainstorm from above the storm clouds.

- 175. What is the first thing you would do if you became a squirrel?
- 176. What is the first place you would fly to if you were a bird?
- 177. If you were able to cure any disease, what one would you choose and why?
- 178. What cartoon character makes you laugh the most and why?
- 179. Describe Sundays at your house.
- 180. What is a mistake people often make about you?

- 181. If you could take a hike anywhere in the world, where would you go and why?
- 182. If you could spend the day with three historic figures, who would they be and why?
- 183. If you wrote your own book, what would the title be and what would it be about?
- 184. If you wrote your own cookbook, what recipe would be your favorite to share?
- 185. If you could spend an afternoon with any leader in the world, who would it be and why?
- 186. If you owned your own brand of clothing, what piece of clothing would you sell and why (shoes, shirts, etc.)?

- 187. Write a letter to your 21-year-old self.
- 188. What is one thing you hope happens today before you go to bed?
- 189. Describe a favorite dream.
- 190. If you had a chance to live on another planet, would you do so, and why or why not?
- 191. If you could spend a week learning about a different language, what language would it be and why?
- 192. What piece of advice means the most to you and why?

- 193. What is a brand-new hobby that you would like to start and why?
- 194. If you could live to 120, would you want to? Why or why not?
- 195. Who helped you grow the most as an adult, and how did they help?
- 196. If you could live under water in the middle of an ocean for a year, would you? Why or why not?
- 197. What quality in a person is most important you? Why?
- 198. What is the funniest thing that ever happened to one of your friends?

- 199. Did your life turn out the way you expected it to?
- 200. What is your favorite sandwich to eat and why?
- 201. Write a list of 10 things that make you feel good.
- 202. What's your favorite question to ask someone to get to know them better?
- 203. If you could get rid of one law, which one would you eliminate and why?
- 204. What is one bad habit you would like to get rid of and why?
- 205. Describe a time when you were surprised.

- 206. What thought always brings a smile to your face and why?
- 207. What is your favorite way to travel (car, boat, plane, etc.), and why?
- 208. Have you accomplished tasks on your bucket list? Why or why not?
- 209. Write 5 positive affirmations for yourself.
- 210. What period of history would you like to live in and why?
- 211. If you could change your whole name, what would you change it to and why?
- 212. If you and your family were part of a zoo, what animals would you be and why?

- 213. Write a review about the last movie you saw.
- 214. Describe what life would be like a reindeer on Santa's sleigh.
- 215. If you were part of a play, what would you do to support the production (act, backstage, marketing, etc.) and why?
- 216. Describe your favorite teacher or professor.
- 217. What is the best compliment you ever received?
- 218. Write about the power you felt when you told someone no.
- 219. Write about the view of someone living in a doll house.

- 220. Make a list of 5 adjectives that pop into your head. Use them to write a story or poem.
- 221. If you could interview anyone in the past or currently, who would it be? Why?
- 222. What is the best day of the year? Why is it special to you?
- 223. Write about being a sock in the washer machine.
- 224. Write a poem about numbers that have a special meaning to you.
- 225. Write a chapter of the memoir of your life.

- 226. Write about your favorite book after it ends.
- 227. Write about a female role model in your life. Why does she inspire you?
- 228. Make a list of 3 people who have inspired you the most. Why?
- 229. What makes the perfect cup of coffee?
- 230. What was your favorite birthday?
- 231. What would you wish for if a genie granted you 3 wishes?
- 232. If you could live inside of one your favorite stories, what would you change about it?

- 233. Write 3 things you cannot live without in your life.
- 234. Write about a time where you felt like you belonged.
- 235. Is it better to be very late or very early to something? Why?
- 236. What world record would you most likely hold?
- 237. What can your generation teach younger people?
- 238. If you could switch lives with anyone for a day, who would it be?

- 239. Describe your favorite cookie as if you are trying to sell it.
- 240. What would you do if you found \$50 on the ground?
- 241. What is your favorite scent?
- 242. Invent your own word. What does it mean?
- 243. Describe the room you are in right now.
- 244. Who is one person you would like to spend more time with if you could and why?
- 245. What can you do today, that you couldn't do a year ago?

- 246. If you could have an unlimited supply of one thing, what would it be?
- 247. Would you rather live in the ocean or on the moon?
- 248. What is something you can do that you can never say no to?
- 249. If you were asked to create your own law, what would it be and why?