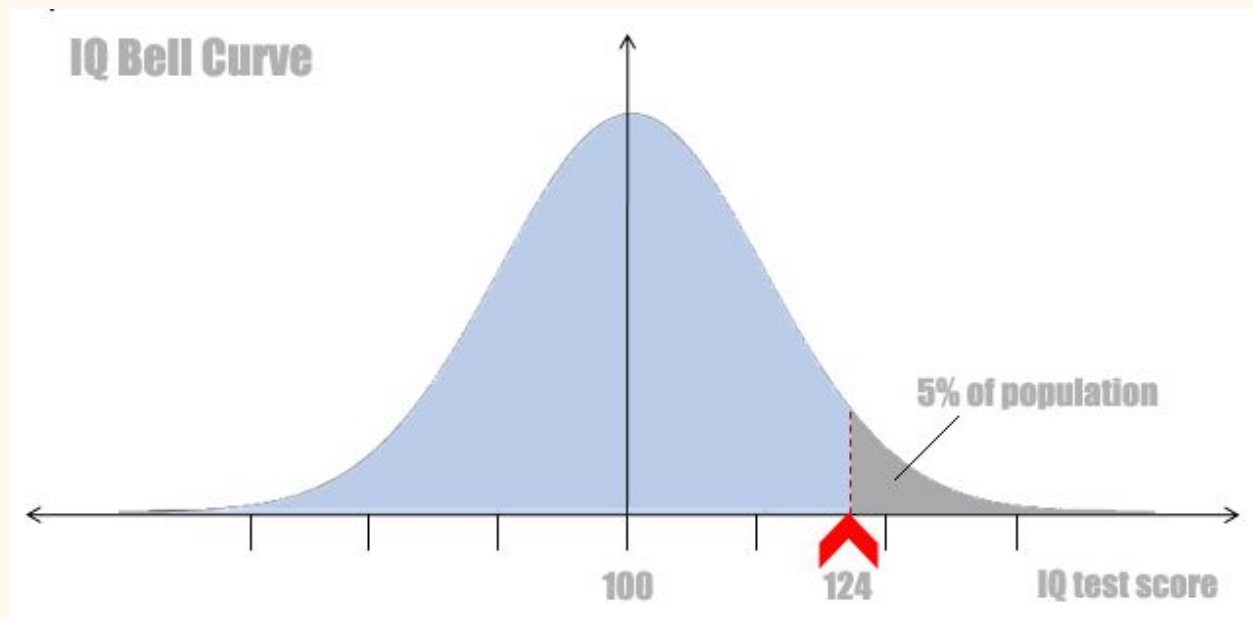


HRP Lab 2018  
CAMBRIDGE, UK

# PSYCHOMETRIC IQ AUGMENTATION 4



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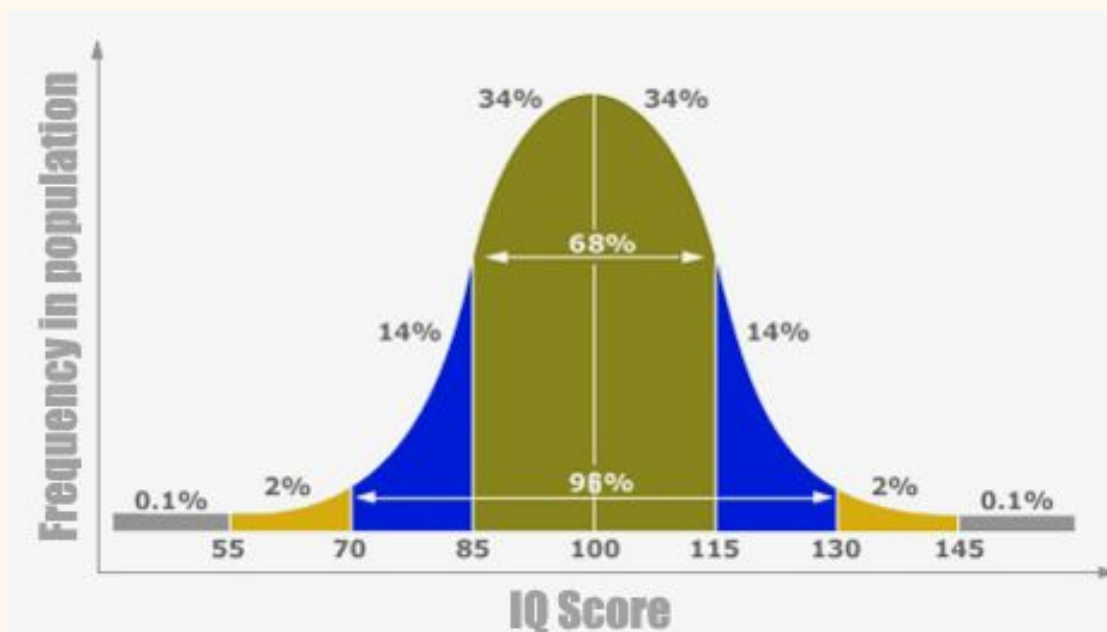
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# HOW TO JOIN MENSA

## The IQ Score Bell Curve: A Normal Distribution

As we saw in *Psychometric IQ Augmentation 2* with standardized IQ tests are designed so that their scores have a ‘bell curve’ distribution in the general population with an **average of 100**.

The distribution curve has a peak in the middle where most people score and tapering ends where only a few people score. In statistics this is called a **normal distribution**.



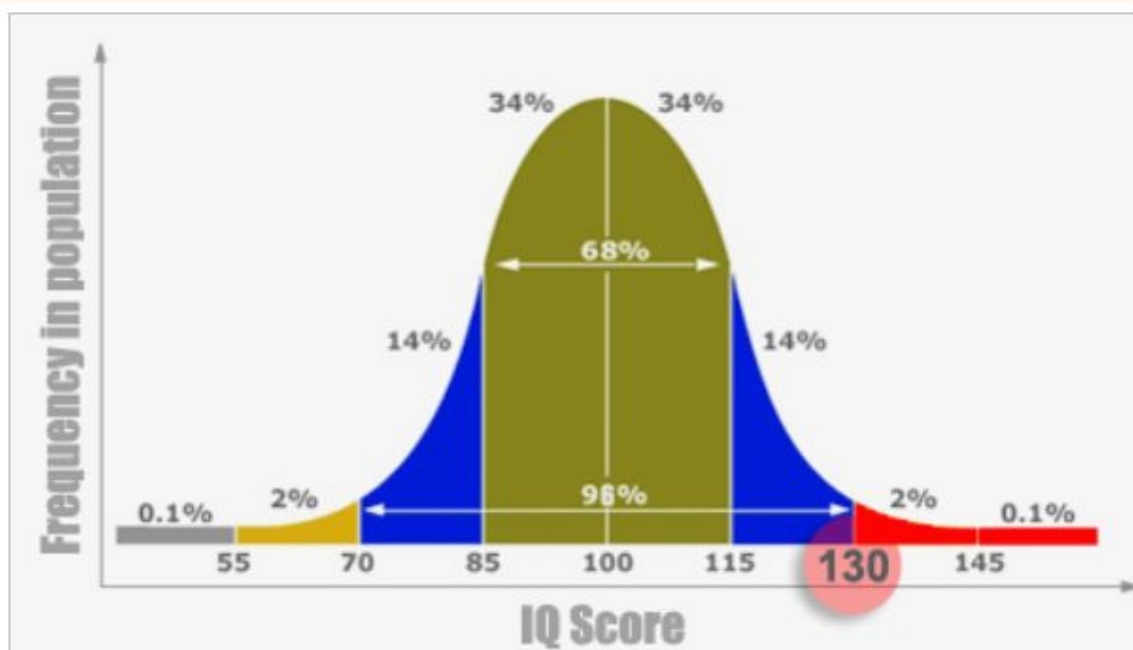
IQ Bell Curve

The area under the curve between scores corresponds to the percentage of the population between those scores. The scores on this IQ bell curve above are color-coded in *standard deviation units*. A standard deviation is a measure of the *spread* of the distribution. 15 points is one standard deviation for most IQ tests.

An ‘average IQ score’ or ‘normal IQ score’ can be defined as a score between 85 and 115. 68% of people score between 85 and 115.

## What is Mensa Standard?

Around 2% of the population (98th percentile or greater) has an IQ greater than 130. This is an IQ of 2 standard deviations from the average IQ. This is Mensa standard – the IQ score required to become a member of Mensa on a scientifically valid supervised IQ test.



## How To Test for Mensa?

Most IQ tests on the internet are not scientifically valid, standardized tests. If you want to test your own IQ level in a way that is accredited for Mensa, how can you go about it?

One approach is to take a professional IQ test administered by a Mensa test official (proctor).

### Mensa Admission Test

A cost-effective method of measuring your true IQ level is to take the supervised Mensa Admission Test. The test-taking fee varies from country to country - for instance in the US the fee is now \$60.00 ([ref](#)); in the UK the fee is now £24.95 ([ref](#)). You will need to check for details in your home country's Mensa website.

Mensa test sessions are held at centres throughout your home country. Details can be found at one of these links:

- [International Mensa](#)
- [US Mensa](#)
- [British Mensa](#)

In the US, proctors welcome you to schedule a supervised testing session in your area. Our Local Groups host test sessions throughout the year. You can enter your [ZIP code here](#), to search for test sessions in your area.

### American Mensa Supervised IQ Tests

American Mensa offers two IQ tests that can qualify you for membership: the standard full-scale standard IQ test battery or a culture-fair IQ test battery. The culture fair test battery is primarily given to those who do not speak English as their primary language or who have language-processing deficits such as dyslexia. Individuals who do not qualify via American Mensa's standard test battery can also take the culture fair battery as a means to qualify for membership. *The culture fair test is given on an 'as needed' basis, and you need to request this option specifically when scheduling a test session.* After taking the standard test, you can take the Culture Fair and vice versa.

The standard Mensa Admission Test battery takes **two hours** to complete. The culture-fair test takes **two to three hours** to complete. These are long test sessions!

**Standard IQ Test Battery:** This includes **two** IQ tests: the *Reynolds Adaptable Intelligence Test* ([ref](#)) and the Mensa version of the *Wonderlic* ([ref](#)). These tests have 'broad ability' subtests for Fluid reasoning (**Gf**), Comprehension-knowledge (**Gc**) and Quantitative knowledge (**Gq**). (These subfactors of IQ are defined with examples in *Psychometric IQ Augmentation 1*.) Test question examples are given below. If you score in the 98th percentile or above in **either** of these two tests, you will qualify for Mensa membership.

**Culture-Fair IQ Test Battery:** This includes the Cattell Culture Fair ([ref](#)), the Nonverbal Reasoning Test ([ref](#)) and the SRA Pictorial Reasoning Test ([ref](#)). Test items in these three tests are non-verbal visual puzzles - e.g. mazes, copying symbols, identifying similar drawings, picking a drawing that is different from other drawings, as well as matrix problems (similar to Raven's matrices tests) involving completing a

matrix of patterns. Test question examples are given below. If you score in the 98th percentile or above in **any** of these three tests, you will qualify for Mensa membership.

Within seven to 10 business days, your tests are scored and a letter with your Mensa qualification status is mailed to you. This letter also contains the raw scores for each of the tests you take. As mentioned above, **you need qualify on only one of the tests to be offered membership.**

### British Mensa Supervised IQ Tests

Supervised Mensa Admissions tests in the UK can be booked online at [this link](#). You can take both the standard full-scale and culture fair IQ tests. A score in either test that puts you in the 98th percentile or higher qualifies you for Mensa membership. These tests are timed, so you will need to be careful with time management - ensuring you do not get fixated on early questions if you cannot initially solve them.

**Standard IQ Test:** This is the Cattell III B with 150 questions. This is a full-scale test, similar to the 'standard' test for American Mensa. You must be very fluent in English to score well on this test.

**Culture Fair IQ Test:** This is the Cattell Culture Fair III A, is largely diagrammatical, with 50 questions. This is similar to the culture-fair test for American Mensa.

It may take up to one month to get your test results for these tests.

## Alternative Mensa Accredited IQ Tests

American Mensa accepts scores from approximately 200 different standardized intelligence tests. Standardized IQ tests accepted for Mensa membership are administered by school districts (e.g. the Cognitive Abilities Test (CogAT)), private psychologists, the military (e.g. Army GCT) and human resource departments (e.g. the Wonderlic). Sometimes potential members have taken on of these Mensa accredited tests at other times in their lives and don't realize they may already qualify for membership.

American Mensa provides some qualifying scores in the tables below, and details on how to submit scores are [found here](#). For the UK, the relevant link is [here](#). In other cases, you will need to check on your home country's Mensa website.

### Tests commonly administered by school districts

Test Name	Qualifying Score
Cognitive Abilities Test (CogAT)	Composite SAS of 132
Differential Ability Scales (DAS)	GCA 132
Differential Ability Scales - Second Edition (DAS-II)	GCA 130
Naglieri Nonverbal Ability Test (NNAT)	Nonverbal Ability Index Score of 130 or above
Naglieri Nonverbal Ability Test 2 & 3 (NNAT2/NNAT3)	Nonverbal Ability Index Score of 132 or above
Otis Lennon School Abilities Test (OLSAT)	Total SAI 132
Otis-Gamma Test	IQ 131
Stanford Binet	IQ 132
Stanford Binet 5	IQ 130
Woodcock-Johnson Test of Cognitive Abilities (not the Woodcock Johnson Achievement Test)	IQ 132 (editions I, II and III); IQ 131 (edition IV)

### College preparatory tests

Test Name	Details	Qualifying Score
ACT Composite	taken prior to 9/1989 taken after 9/1989	29 (composite scores only) Not accepted
GMAT	Total percentile**	95% or above
GRE	taken prior to 5/1994 taken from 5/1994 to 9/30/2001 taken after 9/30/2001	1250 (quantitative + verbal) 1875 (quantitative + verbal + analytic) Not accepted
Henmon-Nelson		132
LSAT***	taken prior to 1982 taken after 1982	662 95 (total percentile rank)
Miller Analogies Test (MAT)	taken prior to 10/2004 taken after 10/2004	66 (raw score) 95% (total group percentile score)
PSAT (taken in junior year)	taken prior to 5/1993 taken after 5/1993	180 Not accepted
PSAT (taken in senior year)	taken prior to 5/1993 taken after 5/1993	195 Not accepted
CEEB	taken prior to 9/30/1977 taken after 10/1/1977	1300 Not accepted
SAT	taken prior to 9/30/1974 taken from 9/30/1974 to 1/31/1994	1300 1250

### Tests administered by the military

Test Name	Details	Qualifying Score
AFQT	taken prior to 10/1980 taken after 10/1980	98 Not accepted
Army GCT	taken prior to 10/1980 taken after 10/1980	136 Not accepted
ASVAB		Not accepted
GT	taken prior to 10/1980 taken after 10/1980	136 Not accepted
Navy GCT	taken prior to 10/1980 taken after 10/1980	68 Not accepted

### Tests administered by private psychologists

Test Name	Qualifying Score
California Test of Mental Maturity (CTMM)	IQ 132
Cattell	IQ 148
Differential Ability Scales (DAS)	GCA 132
Reynolds Intellectual Assessment Scales	IQ 130
Stanford Binet	IQ 132
Stanford Binet 5	IQ 130
Wechsler Adult and Children Scales (WAIS, WAIS-R, WAIS-III, WAIS-IV; WISC, WISC-R, WISC-III, WISC-IV, WISC-V; WPPSI™, WPPSI-III, WPPSI-IV) <b>Note:</b> The Wechsler tests <b>must</b> be given in their entirety. - Mensa requires a Full Scale IQ score (FSIQ), so all sub-tests needed to obtain an FSIQ must be given. Supplemental sub-tests are not required unless they are substituted for a required sub-test with valid explanation for why it was substituted. - For the WISC-IV only: American Mensa will accept the general abilities index (GAI) in cases where there is a significant difference (i.e. 1½ or more standard deviations) between two index scores. For all other Wechsler tests, the GAI will not be accepted.	FSIQ 130
Wechsler Non-Verbal Scale of Ability (WNV) -American Mensa will accept the WNV test only for individuals who are hearing impaired. -The clinical report must indicate this condition to be considered.	FSIQ 130



## Variations in Mensa Test Scores

As discussed in *Psychometric IQ Augmentation 2*, IQ test scores are estimates based on your test performance on a particular day. As such, there is always a margin of error. Your results on American Mensa's tests may vary slightly for any number of reasons unrelated to intelligence or the test. You may be influenced by external factors such as how much sleep you got the night before, general stress level or time of day. You may also do better on one test over another because of the type of test — analogies, verbal questions or spatial questions. One study ([ref](#)) looking at a variety of full scale IQ tests (also called 'test batteries') has concluded that:

*“...1 in 4 individuals taking an intelligence test battery will receive an IQ more than 10 points higher or lower when taking another battery.”*

The take-home is that when you take any supervised IQ test, you always have the option of taking another one, and you might expect that your score will differ by a few points, and even up to 10 points or more. This might motivate you to take multiple IQ tests for Mensa!

As Mensa explains:

*“It is also important to note that our tests are given for the purpose of admission into Mensa and not to quantify intelligence. A qualifying score indicates that you've tested at, or better than, 98 percent of the general population.”*

# IQ Augmentation

## Computerized Cognitive Training (CCT)

As noted in *Psychometric IQ Augmentation 2*, it has become clear from peer-reviewed research in cognitive psychology as well as neuroimaging that some types of brain training are effective for inducing long-term neuroplasticity change and increasing general intelligence (**g**) as well as, IQ scores ([reviews](#)). For instance working memory brain training such as [i3 Mindware](#) increases

IQ in both working memory (*Gwm*) and fluid reasoning (*Gf*) – as well as improving attention control.

## Brain Cross-Training

Other interventions can also augment (or prevent decline of) IQ - such as aerobic exercise, phytonutrients in food, intermittent fasting, good sleep cycles, meditation, nootropics and possibly transcranial magnetic stimulation (TMS). Some of these will be reviewed in a follow-up eBook in this series.



# Getting into Mensa: Training Strategies

As noted above, Mensa accept two types of officially administered IQ tests: (i) the standard 'full scale' tests that measure different sub-factors of your intelligence including verbal and quantitative intelligence; (ii) the 'culture fair' tests that measure non-verbal reasoning and problem solving.

**You can prepare for both types of test and schedule to take each, or focus on just one of them.** You will need to clarify with your local Mensa organisation by phone or email which of the two tests you will be taking, and what the **subtests** for each type are. If you know the subtest names, you can do further research on them on the internet.

Note that you only need to attain a score in the 98th percentile on **one** of the tests you take - whether standard or culture-fair. Mensa loads the chances of a qualifying IQ score in your favour. You do not get your average score if you take all the Mensa tests. You can take up to a total of 5 Supervised IQ Tests for American Mensa (in the UK it is 2 tests). **Your best individual test score is what counts.**

## A. Standard Mensa Supervised IQ Test Strategy

1. Take the free **Mensa Workout** ([link](#)). This quiz is not an official IQ test to qualify you for Mensa but gives you a good idea of the range of question types involved in official IQ testing. The questions on the “Mensa Workout” are biased towards people whose primary language is English. You have half an hour to answer 30 questions.
2. Take the independent **GIQ IQ Test** ([link](#)). This test should give you a reasonable estimate of your baseline IQ. This test was reviewed in *Psychometric IQ Augmentation 2*. There is a \$10 fee for scoring this test.
3. If your **baseline IQ is 130** or higher on the GIQ test, you have already scored in the top 2% of the population on this test, and are likely to already be Mensa standard. With preparation you should feel confident about taking the Supervised Mensa IQ Test. If you **scored 115-130**, you stand a good chance of reaching the 98th percentile threshold IQ score with 6-8 weeks training. If you scored **below 115** (which is classified as ‘high average’, then you may still choose to schedule a Supervised Mensa IQ test and work towards this. Your IQ can increase, and your IQ score can be improved considerably. But the recommendation here is to treat the Mensa admissions test date as a motivator for your cognitive training to help tap your potential - rather than having a strong expectation about getting into Mensa.
4. Read up on my previous two eBooks: *Psychometric IQ Augmentation 1 & 2*.
5. Schedule 6-8 weeks in advance a **Supervised Mensa IQ Test** with your local Mensa organisation. This is the Mensa admissions test battery for your home country, as described above. Give yourself this period of train for the tests to optimize your performance and chances of hitting the 98th percentile.
6. Note that the **duration** of the Mensa Supervised Tests in the US is **2 hours** or more. In the UK the Cattell III B has **150 questions**. Mensa admissions tests require **mental resilience!** This is not like taking a half an hour online test. You need to get used to

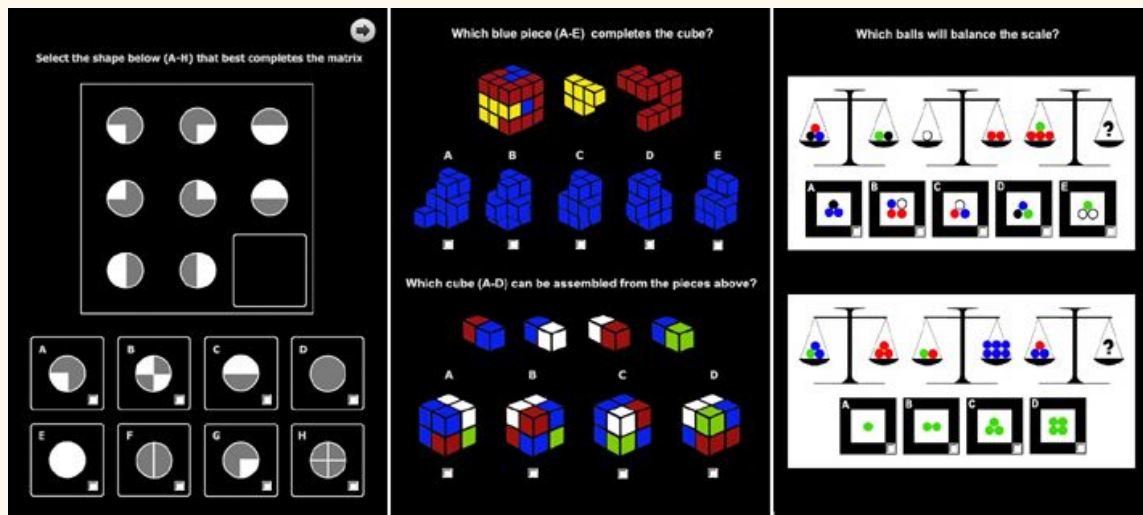
focusing for 2 hours at a stretch when you are preparing for these tests. Building your mental resilience is important. You may consider setting aside 2 hours each day for mental training leading up to the admission test at the same time as you will be taking the Supervised Mensa test. How alert we are varies depending on the time of the day, so be prepared for the time-slot you are allocated.

7. Leading up to your qualifying IQ test, commit to **practicing full scale IQ test problems** from whatever sources you can find them online or in downloadable pdfs. You are looking for tests for verbal reasoning and comprehension, quantitative reasoning, and logical reasoning. It is known that this kind of practice can improve scores. The more practice you get the better. An example of an online resource for these types tests is [this website](#). You are encouraged to do your own Google searches!

8. There are other **brain cross-training interventions** you can adopt over your training period to increase your brain performance and resilience. These include regular aerobic exercise, intermittent fasting and a 'brain healthy' diet - e.g. packed with phyto-nutrients. Mindfulness meditation is another strategy that can help with concentration and improve the results from your training.

9. Leading up to your qualifying IQ test, consider committing to training your **working memory capacity (Gwm)** and **concentration tolerance**. Working memory capacity is your mental 'workspace', and is a sub-factor of IQ. The larger the capacity, the more complex reasoning and problem solving you can do, and the more efficiently you can learn test taking strategies. There is a body of scientific evidence showing that working memory training can have widespread benefits for IQ, concentration and resilience to stress (e.g. for testing conditions) as [reviewed in this online resource](#).

[i3 Mindware](#) is an evidence-based working memory training app that can improve working memory (**Gwm**), fluid reasoning and sustained concentration. The i3 app combines an advance form of dual n-back training, and comes with valid IQ tests to track your progress, and full-scale IQ test problem sets. Training with this app provides a complete training program to prepare for Mensa if you supplement the IQ test problems provided with additional online test problems.



i3 Mindware IQ test problem sets

10. After completing a brain training and cross-training program – which typically lasts for 20 days minimum spread over 4-6 weeks - allow for at least two days before taking the Supervised Mensa IQ Test. And try to get a decent night's sleep before the test day.

## B. Culture-Fair Supervised Mensa IQ Test Strategy

You may choose to adopt this strategy if your first language is not English, if you are dyslexic or if you are stronger with non-verbal and non-math based IQ test problems. You could also adopt this strategy *after* taking the standard Mensa Supervised Test if you did not make the grade. You should be eligible to re-apply and take the culture-fair test the second time round. The strategy here is the same as for the Standard Supervised Mensa IQ Test above, with the following differences:

- Ensure you first contact your local Mensa organization and arrange to have the 'culture-fair' Supervised Test. You should be eligible to take this test even if you are a native English speaker, but you may need to make a specific request for this kind of non-verbal test. For contact details, see above.
- To get your initial baseline IQ scores, take any of the culture fair tests linked to in my *Psychometric IQ Augmentation 2* eBook. These tests include [Anders Jensen's IQ Test](#) and the [JCTI \(Test of Induction\)](#).
- When you do your practice tests over the weeks leading up to the Supervised Test, focus on 'culture fair' IQ tests that are **not** based on verbal or quantitative

reasoning. You are looking for tests involving figures, symbols and visual patterns for fluid reasoning and visuospatial ability. Other examples of culture fair tests can be found at the following links. (Note that the scores you get will not be truly valid and standardized - do not read into the scores. The point here is to get practice in these kinds of test questions.)

- > [IPS Non-Verbal Reasoning Test](#)
- > [European IQ Test](#)
- > [University of Kent's Non-Verbal Reasoning Test](#)

- If you use the i3 Mindware app for additional IQ augmentation brain training, you may choose to spend less time working through the verbal and quantitative IQ test problems provided.

## C. Alternative IQ Test Strategy

If neither of the strategies above has worked for you, you can also opt to take one of the Mensa-accredited professional IQ tests, proctored by e.g. an HR administrator, psychologist or educationalist. These tests could be either full-scale or culture-fair, as listed in the tables of accredited IQ tests and qualifying scores above. This strategy may be preferred if you do your research and prefer some aspect of one of the authorized tests. A 6-8 week training program of the same structure as described above may then be adopted, with the provision that you train for the specific IQ test you are taking.

# Summary

In summary, we have explained what valid, standardized IQ tests and scores mean in terms of the IQ Bell Curve and what a Mensa qualifying score is. We have looked at what the two basic types of Mensa admissions tests (Supervised IQ Tests) are: standard and culture fair. We have seen how the specific tests differ from country to country and how you will need to check with your home-country's Mensa organization to figure out what test options you have. We concluded by tracing out some strategies to optimize your chances of getting into Mensa - including the Standard Mensa Supervised IQ Test Strategy and the Culture-Fair Supervised Mensa IQ Test Strategy. Good luck.