

Introducing *Ho Math and Chess*[™] Learning Centre

Frank Ho, a Canadian certified math teacher, intrigued by the relationships between math and chess after teaching his son chess started ***Ho Math and Chess***[™] over 10 years ago. His long term devotion of research has led his son become a FIDE chess master and also the publications of seven workbooks. Today, *Ho Math and Chess* is the world leading research organization in the field of math and chess integrated teaching.

There are hundreds of articles published on why chess benefits children (see www.mathandchess.com) and we all know that working on math puzzles is a very good way of developing math problem-solving ability, so by integrating chess and mathematical chess puzzles together, the learning effect is significant.

Parents send their elementary kids to our centre because they like our philosophy – offering children problem-solving questions in a variety of formats. The questions could be pure chess, chess puzzles or mathematical chess puzzles in nature of logic, pattern, three structure, Venn diagram, and probability etc.

We have developed a series of unique workbooks. Our flagship product is world's first *Magic Chess and Math Puzzles*. It is not only for learning chess but also for the purpose of enriching math abilities in the area of problem-solving, this sets us apart from an ordinary chess club or other chess lessons. At *Ho Math and Chess*, we also offer advanced and competition chess classes.

Math is our specialty, we have been teaching this subject for over 10 years and we have created our own materials. We are one of the oldest and well established learning centres in Canada, and now we are franchising the teaching concept worldwide.

Our teaching material will be translated into French and Spanish so more kids in the world could benefit by using our teaching materials.

We do the teaching while children do the thinking, math + chess = fun and cool way of learning. Learn how to play chess or enjoy the thrill of solving a math puzzle...Learning has never been so fun.

Franchise and more information could be found at www.mathandchess.com. Please phone Frank Ho at 604-263-4321 for franchise information.

***Ho Math and Chess* offers traditional school math plus emphasis on word problem solving. Enriched students could combine the teaching of math, word problem solving, and chess/puzzles all in one class. The combo of math and chess class is to use chess as a teaching tool to enhance the problem solving ability. Students solely interested in improving chess playing ability are encouraged to attend our chess class.**

We also offer math contest preparation and SAT or PSAT math preparation classes.

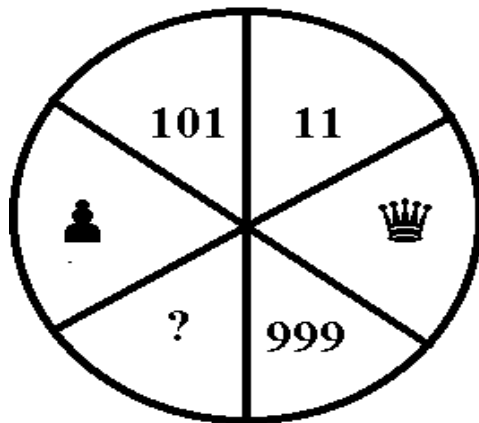
Student assessment is offered as free service by appointment only. Multiple sessions and family members receive discounts. Please phone for details.

There are over 15 reasons why students come to *Ho Math and Chess*.

Ho Math and Chess:

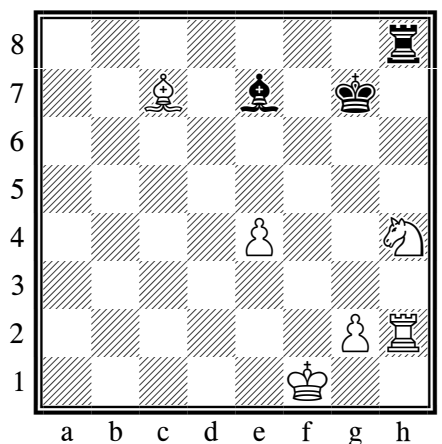
- has multi-subjects offered with one fee, school math + chess, school math + physics, school math + math contest preparation.
- is one of the most reputable learning centres in British Columbia.
- is one of the largest learning centres in B.C.
- emphasizes not only mathematical computation but also problem solving.
- has a high track record of improving in marks.
- most teachers have over 10 years of tutoring experience.
- has published articles in *Vector* - The official Journal of the British Columbia Association of Mathematical Teachers.
- has published *Mathematical Chess Puzzles for Juniors*, *Fun Math Puzzles for Juniors*, and *Math Contest Preparation* and also in-house math workbooks.
- participated in the annual BC Math Teacher's Conferences.
- most students are repeat students who also refer others.
- does not teach other subjects, math is the specialty and we concentrate in 3 areas: *Computation and Problem Solving*, *Math Contest Preparation*, and *Math Enrichment*.
- teachers also teach chess at St. George's Summer Camps and other camps.
- is a place where you can learn math from kindergarten to grade 12 and calculus.
- is interested in building a long-term relationship with students and parents.
- has a student-to-teacher ratio of 4 to 1. Individualized teaching with each student progresses at his or her own pace (no grades limitation).
- fees are extremely reasonable in comparison to other similar learning centres, based on the teaching quality students received.
- has a make-up system for missed classes.
- closely monitors students' homework.
- participated in the MathCounts math competitions and had excellent results.

A sample question of *Magic Chess and Math Puzzles* is as follows: Replace the following ? with an answer.



何数学棋艺中心 (Ho Math and Chess Learning Centre) 由 Frank 何老师与十年前创立. 何老师的儿子 (Andrew) 于 5 岁多时对国际象棋发生兴趣, 但何老师对国际象棋却完全无知, 于是何老师去图书馆借书, 买书, 买录影带, 订阅杂志, 并且以电脑为教学工具, 展开了一连串的教学活动. Andrew Ho 于 12 岁时获得加拿大 12 岁组, 少年组, 青年组的三冠王, 破了加拿大棋界的记录, 并于巴西的分龄组世界国际象棋大赛比赛获得第 5 名.

许多人都知道, 数学与棋有着密切的关系, 但并没有书籍专门介绍小朋友棋与数学的关系何在. 何老师就此问题发生兴趣, 因而研究, 从此就研发出了世界首创且有版权保护的数学式棋艺问题 (Mathematical Chess Puzzle). 下面是一个很有趣的例子:

How does skewer work?	Visualization																									
<p>Show how white makes a skewer by an arrow.</p> 	<p>Replace each? with a number.</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 5px; text-align: center;">?</td> <td style="background-color: #cccccc; padding: 5px; text-align: center;">+</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">?</td> <td style="padding: 0 10px;">=</td> <td style="padding: 0 10px;">?</td> </tr> <tr> <td style="background-color: #cccccc; padding: 5px; text-align: center;">+</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">♖</td> <td style="background-color: #cccccc; padding: 5px; text-align: center;">+</td> <td colspan="2"></td> </tr> <tr> <td style="border: 1px solid black; padding: 5px; text-align: center;">6</td> <td style="background-color: #cccccc; padding: 5px; text-align: center;">+</td> <td style="border: 1px solid black; padding: 5px; text-align: center;">31</td> <td style="padding: 0 10px;">=</td> <td style="padding: 0 10px;">?</td> </tr> <tr> <td style="padding: 5px; text-align: center;"> </td> <td></td> <td style="padding: 5px; text-align: center;"> </td> <td colspan="2"></td> </tr> <tr> <td style="padding: 5px; text-align: center;">24</td> <td></td> <td style="padding: 5px; text-align: center;">45</td> <td colspan="2"></td> </tr> </table>	?	+	?	=	?	+	♖	+			6	+	31	=	?						24		45		
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何老师更由研发数学式棋艺问题而发展出了新观念的数学计算题. 此一理论是根据何老师亲自授课的经验, 观察学生的生活实际经验学数学并不是按照加, 减, 乘, 除的次序而是自然学习. 学生自然的学习法是加, 减, 乘, 除的混合式. 例如: 已经有了 2 个苹果, 妈妈再给一个则一共有 3 个. 如果妈妈说 1 个给弟弟, 则自己只剩下 2 个. 如果妈妈说再分一半给妹妹, 则自己只剩下了 1 个. 此一连串的行为已包括了加, 减及除法的概念. 妈妈说同样的袜子拿 2 双, 则此算法包括了乘法. 所以我们知道日常小朋友的生活实际上已包含了混合式加, 减, 乘, 除的概念. 如何将此实际生活的经验反应到小朋友的学习数学的教材呢? 读者可参考下面何老师研发出的一个很有趣的样本.

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数学 + 棋艺 = 寓教于乐的逻辑学习法

何数学棋艺中心自 1995 年创办以来, 已成为一个最有信誉的数学专科补习中心. 最独特的一点为该补习中心研发出版了世界第一本融合国际象棋, 数学谜题及数学计算的综合寓教于乐教材. 该教材不但达到了寓教于乐的目的, 更增加了学习数学的兴趣, 解题的能力及增进脑力的效果. 本中心不但强调计算能力, 更要求学生做文字应用问题.

师资皆经过本中心培训, 教学完全配合学生个人及学校进度, 并解答学生家庭作业问题. 专业教师, 小班教学, 收费合理, 教学进度按个人能力而定. 下列综合班采用本中心研发教材, 只收一课程费用.

- *数学 + 文字应用问题班
- *小棋士棋艺益智班
- *数学 + 棋艺益智班
- *数学 + 物理 + 化学 + 生物 + 微积分班
- *私立小学及省考班
- *数学竞赛班

课程及费用因各地连锁教室会有差别.

本中心大量资料请查询: www.mathandchess.com.