

Xilin Northwest Chinese School

教师备课

Class Name: MTH_007C Competition MATH (初中数学竞赛难题精解)

Teacher Name: James Hu (Ph.D)

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家长问答	<p>问： 请问这门课适合什么样的学生上？ 答： 有一定 algebra I 基础的，想在数学解题能力上进一步提高的孩子都可以。</p> <p>问： 是不是学生要参加数学竞赛？ 答： 本学校本课程不专门组织学生参加竞赛，但所学的知识肯定有助于学生自己去参加的各种竞赛。</p> <p>问： 这门课教育上有什么特点？ 答： 我主要是启发引导学生去解题。所有的题目都是自己多年来精选出来的。每课精讲 3-5 新题，不搞题海战术。还提供机会让学生上台讲解，培养孩子的表达能力。课前一般先做一些数学游戏，以培养数学兴趣，然后再讲解一下较难的作业题，因为我觉得，光做题而不知道应怎么正确做收获不大。课后留 20 分钟左右的作业。作业一半是 AMC8，另一半是温故课上学过的知识。整个学期结束，将根据学生的平时成绩，课上发言，quiz，作业，及期中和期末考试成绩，给一个 grade. 给家长一个交待。</p> <p>问： 12-1pm 和 1-3pm 两门课有什么区别？ 答： 正常课是 1-3pm，二个小时，但考虑到有些学生 1-5pm 已经有别的课，所以我 offer 12-1pm 的，方法和内容与 1-3pm 差不多，但 skip 有些题，因为时间较紧。</p> <p>问： 我女儿现在刚开始六年级，能上你的课吗？ 答： 本课主要是为 G7 & Up 设计的，如果她数学超前，已有一定的 algebra 基础，也可以上，或者等明年上。</p> <p>问： 若想体验你的课，我孩子或我可以旁听一下吗？ 答： 当然可以，欢迎每位感兴趣的家长和孩子来听一次。</p>
教学内容	<p>Competition Math class is dedicated to those students who want to learn more math and improve their problem solving ability. Only those students in Gr 7-8 (exceptional gifted Gr-6 may be OK), aspiring to be a great problem solver, and willing to be challenged are invited.</p> <p>Every parent knows how tough it is to teach your own kids the math, but don't worry, I will serve that role for you. I will use the materials from various math competitions of previous years, and coach them to solve a complicated math problem in a smart way. If a problem can be solved in multiple ways, I will encourage them to think out-of-box. Students will have enough time to practice in the class for the skills just learned.</p>

	Attending class and discussion is important for learning, but practicing and doing lots of homework is equally important. We all complain that the regular school doesn't assign enough math homework, as a supplement, I will assign plenty of homework selected from AMC 8, MATHCOUNTS, and (中国) 各省市中考题.
教学目标	<ul style="list-style-type: none"> To stimulate enthusiasm and a love for Mathematics To introduce important Mathematical concepts To teach major strategies for problem solving To develop Mathematical flexibility in solving problems To strengthen Mathematical intuition To foster Mathematical creativity and ingenuity To provide for the satisfaction, joy, and thrill of meeting challenges <p>After one year of learning, I hope your kids' math skill will be improved significantly, that will enable her or him excel in MOEMS(小学和初中奥数), MATHCOUNTS, and AMC8 competitions if participated.</p>
教学设计	<p>Topics covered include inequality, equation, circle, geometry basic, number and fraction, functions and coordinate, statistical and probability, triangle and quadrilateral etc. However, the class will not teach the same subjects already taught in regular school, though I will briefly review some basic concepts if necessary.</p> <p>Good news and Honors: My students of this school have won following awards 2014/2015:</p> <ul style="list-style-type: none"> 1st place (among all 6th graders) in Lake county, scored 790 in math SAT. 34th place among all 6-8th grader contestants and 1st place in Twin Groves math count team which went for State competition. 1st place as individual and won 2nd place as a two-people team in Stevenson Math Consortium 12th place at level 8 Math Kangaroo nationwide 3rd place at level 8 Math Kangaroo in Illinois
教具准备	In the past, I usually distributed handouts in the class. To avoid the hurry due to copying the handouts before each class, I have edited a 讲义, "Competition Math for Middle School". Lots of tough question in this讲义 were created by myself, and the rest materials were taken from MOEMS, AJHSME (美国初中数学 竞赛), AMC 8/10, MATHCOUNTS, and (中国) 各省市中考题("Dragon Gate" book series) which have been widely used in China. The讲义 will be available in the first class.
Comments from Parents:	<p>尊敬的胡老师:</p> <p>不知不觉, 本学期已经接近尾声, 在您的悉心教导下, 我的女儿在数学兴趣和思维方面取得了明显的 进步, 作为家长, 我真是欣喜万分! 感谢有您和您那独树一帜的教学方法。使她能够在美国得到了第一流的数学启蒙教育。</p>

我的女儿在上海读到小学四年级，目前读六年级。比较她在国内和美国的学校教育，我认为这里的数学基础教育缺少了一个重要的引导阶段：没有启发孩子去发现学习数学的乐趣和方法，也没有给孩子足够的时间去思考和练习。

对我的女儿而言，上您的课程之前，她是非常被动的在学习数学，即使已经在这里上了六年级，可解决问题的方法还停留在国内四年级的水平，这让我忧心忡忡。因为如何用算术的方法去解决方程的问题，在国内的小升初阶段是一个关键的数学启蒙，通过这个阶段，可以极大的促进孩子思考和解决问题的能力，这对孩子中学阶段的教育是至关重要的。作为家长，我们看到了问题，却无力解决，一直到发现有您的课程，这是孩子们的幸运！虽然课程要求七年级程度以上，我还是给六年级的女儿报了名。而且我认为这是她的运气。

您的课程名为数学挑战，或是数学思维拓展，通过一个学期的学习后，我认为有以下几个特色，特别值得向所有适龄阶段的孩子推荐：

- 所有课堂练习题目和课下作业，都经过仔细挑选，和孩子在学校已经掌握的基本知识契合的很好，可是又别有洞天。
- 知识面宽，课程包含了算术，方程，概率，几何。
- 指导孩子们尽量自己去解决问题，主动思考，而不仅限于算出答案。
- 精心组织孩子们数学竞赛，通过竞争增强孩子们学习数学的兴趣。
- 鼓励孩子在课堂上回答问题，而且回答正确有奖励机制。课堂交流非常良好。
- 会有阶段小结，温故知新。两个学期作为一个循环，生动有趣。

这么好的课程，如果不推荐给大家，就好比明珠暗投，实在是太可惜了！胡老师学识渊博而又循循善诱，诚乃西林中文学校之幸，学生及家长之幸也！

学生家长：马冠成

05/26/2015

Hi James,
My daughter Liz is in your Competition math class at Xilin Chinese School. I'd like to drop you a quick thank you note to appreciate all the great lessons you taught my child this year. It's great to see Liz being challenged - obviously that's something missing from her day school work.

I'm glad that this class is offered as 2-hour next year. I'll definitely spread the word and recommend it to other parents.

Thanks again, and best regards!

-Janet (Liz's mom)
On 05-12-2014

Dear Principal Shi XiaoHong,
James Hu is a very good math teacher. He is very knowledgeable and spends a lot of time on preparing class materials. He not only teaches students basic math concepts, he also teaches critical thinking and problem solving skills. I strongly recommend that the school support this class.

-Ping
On 01-27-2014