

2008 World City Cup

Abacus, Mental Arithmetic & Mathematics Competition

1. Objective:

The intent of this event is to propagate to a global audience the benefits and values derived from the teachings of abacus. In addition to introducing fundamentals skills of mental math, we hope to achieve the following:

- ❖ Cultivate to an audience of all ages the fundamental aspects of mental math.
- ❖ Demonstrate the benefits with the skills acquired from mental math.
- ❖ Promote the teaching standards shared across the network of mental math teachers.
- ❖ Develop world civic culture exchange.

2. Date: 19 July, 2008 (Saturday)

3. Locations: Hilton Hotel (Newark, California) 39900 Balentine Drive, Newark, CA 94560, and California's Great America Theme Park (Santa Clara, California) 4701 Great America Pkwy, Santa Clara, CA 9505

4. Sponsor: Chinese America Abacus Association

5. Co-sponsor: All Competing Organizations National Council of Associations of Chinese Language Schools Association of Northern California Chinese Schools Southern California Council of Chinese Schools Children's Discovery Museum of San Jose Distinguished Citizens Society International Association of U.S.A. Berryessa Chinese School

6. Prerequisites:

Qualified participants are active students currently enrolled in abacus, mental arithmetic and math classes from certified organizations across different countries.

7. Participative groups: Groups are separated into two Main Sections, Sections I and II

- ❖ Section I contains the following (in alpha order):
Canada, Hong Kong, Indonesia, Macau, Malaysia, Singapore and the United States.
- ❖ Section II contains the following (in alpha order):
China, Japan, Korea and Taiwan.

Each Section is divided into three Groups: A, B and C

Each Group contains grades 1 through 12

(Note: Kindergarteners register for the 1st grade level; college students are in the 12th grade level.)

8. Competition events and contents: (For details see Appendix A)

9. Scoring:

- (1) The individual total scores include Abacus, Mental Arithmetic and Math.
Each participant receives three individual scores and the sum of the scores is their Total Score.
- (2) If Total Scores are the same then contestants in this group are ranked equally in the corresponding position.

10. Awards:

Section I (Canada, Hong Kong, Indonesia, Macau, Malaysia, Singapore and the United States)

- ❖ There will be three types of trophies available for groups A and B
 - Champion
Students with the highest Total Score from each grade level will receive a champion trophy.
 - Gold
30% of the students from each grade level with Total Scores NEAREST to the Champion Total Score will receive a Gold Trophy.
 - Silver
The remaining students from each grade level will receive the Silver Trophy.
- ❖ Only Gold and Silver trophies are available for group C
 - Gold
30% of the students from each grade level with Top Total Scores receive a Gold Trophy.
 - Silver
The remaining students from each grade level receive the Silver Trophy.

Section II (China, Japan, Korea and Taiwan):

- ❖ There will be three types of trophies available for group A.
 - Champion
Students with the highest Total Score from each grade level receive a champion trophy.
 - Gold
30% of the students from each grade level with Total Scores NEAREST the Champion Total Score receive a Gold Trophy.
 - Silver
The remaining students from each grade level receive the Silver Trophy.
- ❖ Only Gold and Silver trophies are available for groups B and C.
 - Gold
30% of the students from each grade level with TOP Total Scores receive a Gold Trophy.
 - Silver
The remaining students from each grade level receive the Silver Trophy.

11. Grading Criteria

Please follow the rules when answering your questions. No score is given for any violation of these rules:

Abacus and Mental Arithmetic:

- a. Write your answers with Arabic numbers clearly. Unclear or ambiguous writing is counted as invalid.
- b. No matter whether the answer is correct or not, a question with two or more answers is void.
- c. Use a “comma (,)” to separate every third digit in a whole number which has 3 or more digits.
Example: 5,384,200
- d. Write two “zeros” or a “dash (-)” (also called hyphen or minus) after the “decimal point (.)” if it is a “monetary (\$)” question. Examples: \$4,832.00 or \$4,832.-
- e. Draw “double lines” to cross out entire numbers if you discover a mistake. Then write the correct answer under, or next to it. DO NOT USE an eraser or correction fluid to cover the wrong answer or to make a partial correction.
Examples: ~~\$34.78~~ \$34.79 (valid); ~~\$34.78~~ \$34.79 (invalid)
- f. Answers must be written on the assigned space or answer sheet.
- g. For the Multiplication and Division of the Abacus in Group A, the \$ Monetary calculations round to the second place after the decimal point; the non-\$ Monetary calculations round to the fifth place after the decimal point.

Mathematics:

- Write your answers on the assigned space on the answer sheet. No score is given for violating this rule, nor will scores be given for answers given on scratch paper.
- Besides the answer sheet, a blank piece of paper will be provided for use as scratch paper.
- If a question has two answers, then no score will be given.
- You may use the abacus as a calculating tool. Calculators are not allowed.

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(Appendix A: Contents of Group, Event, and Degree)**

Group	Item	Contents of Degree	# of Questions	Score	Time Limits	
A	I Mental Arithmetic	Multiplication Questions for 4-, 5-, 6- and 7-digit whole numbers Examples: (25 questions for each) $2 \text{ digits} \times 2 \text{ digits} =$, $3 \text{ digits} \times 2 \text{ digits} =$, $3 \text{ digits} \times 3 \text{ digits} =$, $4 \text{ digits} \times 3 \text{ digits} =$	100	100	3 minutes	
		Division Questions for 4-, 5-, 6- and 7-digit whole numbers Examples: (25 questions for each) $4 \text{ digits} \div 2 \text{ digits} = 2 \text{ digits}$, $5 \text{ digits} \div 3 \text{ digits} = 2 \text{ digits}$, $6 \text{ digits} \div 3 \text{ digits} = 3 \text{ digits}$, $7 \text{ digits} \div 4 \text{ digits} = 3 \text{ digits}$	100	100	3 minutes	
		Addition & Subtraction \$ Monetary questions for ten 3-digit numbers, ten 3- and 4-digit numbers, ten 4-digit numbers, ten 4- and 5-digit numbers, and ten 6-digit numbers (10 questions for each)	50	100	3 minutes	
	II Abacus	Multiplication Questions for 6- and 7-digit whole numbers; \$ Monetary, non-monetary and mixed decimal questions for 8- and 9-digits numbers Examples: (5 questions for each) $3 \text{ digits} \times 3 \text{ digits} =$, $3 \text{ digits} \times 4 \text{ digits} =$ (Whole number questions) $4 \text{ digits} \times 4 \text{ digits} =$, $4 \text{ digits} \times 5 \text{ digits} =$ (\$ Monetary, non-monetary and mixed decimal questions)	20	100	6 minutes	
		Division Questions for 5- and 6-digit whole numbers \$ Monetary, non-monetary and mixed decimal questions for 7-, 8- and 9-digits numbers Examples: (5 questions for each) $5 \text{ digits} \div 2 \text{ digits} = 3 \text{ digits}$, $6 \text{ digits} \div 3 \text{ digits} = 3 \text{ digits}$, $7 \text{ digits} \div 3 \text{ digits} = 4 \text{ digits}$, $8 \text{ digits} \div 3 \text{ digits} = 5 \text{ digits}$	20	100		
		Addition & Subtraction \$ Monetary questions for ten 6- and 7-digit mixed decimal; \$ Monetary questions for ten 7- and 8-digit mixed decimal (5 questions for each)	10	100		
	III Mathematics	True/False	The questions for each grade rest on the standards which the contestants learned in various cities.	20	100	25 minutes
		Multiple Choice		20	100	
		Fill Blanks		20	100	
	B	I Mental Arithmetic	Multiplication $2 \text{ digits} \times 1 \text{ digit} =$, $3 \text{ digits} \times 1 \text{ digit} =$ Whole numbers questions (25 questions for each)	50	100	3 minutes
Division $3 \text{ digits} \div 1 \text{ digit} = 2 \text{ digits}$, $4 \text{ digits} \div 1 \text{ digit} = 3 \text{ digits}$ Whole numbers questions (25 questions for each)			50	100	3 minutes	
Addition & Subtraction Five 2-digit numbers (20 questions), six 2-digit numbers (10 questions) Seven 2-digit numbers (10 questions), eight 2-digit numbers (10 questions)			50	100	3 minutes	
II Abacus		Multiplication Questions for 4-, 5-, 6- and 7-digit whole numbers Examples: (5 questions for each) $2 \text{ digits} \times 2 \text{ digits} =$, $2 \text{ digits} \times 3 \text{ digits} =$, $3 \text{ digits} \times 3 \text{ digits} =$, $4 \text{ digits} \times 3 \text{ digits} =$, Whole number questions	20	100	6 minutes	

		Division	Questions for 4-, 5-, and 6-digit whole numbers Examples: 4 digits ÷ 2 digits = 2 digits (10 questions) 5 digits ÷ 2 digits = 3 digits & 5 digits ÷ 3 digits = 3 digits (5 questions) 6 digits ÷ 3 digits = 3 digits & 6 digits ÷ 4 digits = 2 digits (5 questions)	20	100		
		Addition & Subtraction	\$ Monetary questions for ten 2-4 digits mixed decimals (5 questions) \$ Monetary questions for ten 3- and 4-digit mixed decimals (5 questions)	10	100		
	III Mathematics	True/False	The questions for each grade rest on the standards which the contestants learned in various cities.	20	100		25 minutes
		Multiple Choice		20	100		
		Fill Blanks		20	100		
	C	I Mental Arithmetic	Mental Addition & Subtraction	Questions for five one-digit whole numbers	50		100
Mental Addition & Subtraction			Mixed questions for two one-digit whole numbers and two 2-digit whole numbers	50	100	3 minutes	
Mental Addition & Subtraction			Mixed questions for one one-digit whole number and three 2-digit whole numbers.	50	100	3 minutes	
II Abacus		Addition & Subtraction	Questions for seven 2-digits whole numbers	30	300	6 minutes	
III Mathematics		True/False	The questions for each grade rest on the standards which the contestants learned in various cities.	20	100	25 minutes	
		Multiple Choice		20	100		
		Fill Blanks		20	100		