2021 World City Cup
Abacus, Mental Arithmetic & Mathematics Online Competition Rules

A "Live + Virtual Event" will be held simultaneously online. We are integrating technology to bridge the gap caused by the COVID-19 pandemic and bring us closer through the internet. We are hoping abacus, mental arithmetic, and mathematics competitions can continue, cultural exchange activities can resume, and we can continue to promote mutual understanding and friendship.

Date	August 21/22, 2021
Location	Online/Zoom (City or County as the basic unit)
Organizer	Chinese American Abacus Association
Co- Host	Chinese Academy of the Abacus
Co- Sponsor	Participating Teams

Competing Regions, Groups, & Competition Contents

(1) Participating Regions: Cities in all regions of the world

(2) Competing Groups:

Students in 1st grade and up will be divided according to their skill levels into one of the three groups: A, B, or C. Kindergarteners will be placed in Group C.

- Groups: Kindergarten Group, Grade 1, Grade 2, Grade 3, Grade 4, Grade 5, Grade 6, Middle School (Grades 7, 8 & 9), Open Group I (Students above Grades 10 high school and college students), and Open Group II (non-students).

(3) Competition items and content: (see Appendix A below for details) All groups must participate in three items; mental arithmetic, abacus, and mathematics competitions.

Scoring:

(1) The ranking will be determined based on the total scores of the individual's abacus, mental arithmetic, and mathematics.
(2) If the total score is the same, among the lowest scores in the three competitions who gets the higher score will be given the higher rank, and so on.
(3) If the results of all items are the same, the ranking is determined by drawing of lots.
(4) If one of the three results is zero points, no award will be given.

Awards: Award priority will be given to Group A of each grade first, then Group B:

Regional Champion	One competitor with the highest total score in each grade from Group A or Group B will be awarded as the Regional Champion based on their personal abacus, mental arithmetic, and math scores. The total scores must be 450 points or more to be eligible for the Regional Championship. If the total score does not meet the requirement, the award will not be issued.
Rising Star	One competitor with the highest total score from Kindergarten Group will be awarded as the Rising Star.
Gold Medal	Awarded to the top 30% of competitors in each grade level per participating team. The organizer then aggregated less than 30% of each city's unified ranking as the gold medal award.
Silver Medal	Awarded to competitors in each grade level per participating team, excluding the Champion Award and Gold Medal Award recipients.

Team Leader and Coach Award: Certificates awarded to city team leaders, champion coaches, and outstanding coaches.

Registration Deadline: Open now until July 05, 2021.

Registration Fee(s): Please check with your city for the registration fee for your region.

- The organizer is responsible for examination papers, software, web conference hosting, postage, and the design elements, medals, souvenirs, event posters, etc.
- Each regional competition host is responsible for regional competition venues and networking equipment (if used), championship trophies, and local event posters, etc.

Payment method:

Registration fee(s) will be remitted by bank wire transfer or Credit card pay to CAAA.
Once the application & registration fee(s) are accepted, there will be no refunds.

Required Setup: Competitors will be required to have a setup where their immediate surrounding areas are clearly visible in order to prevent cheating with a calculator or using outside help. **Participants found to use an impostor or outside help, or otherwise cheat will be disqualified.**

Grading Criteria: No points will be awarded for any violation of the following rules.

Abacus and Mental Arithmetic

(1) Submit your answers with Arabic numerals, decimal points, and separators only. Answers submitted with other characters will be marked as invalid.

(2) Answers will be scored "as-is" – that is, the answer will be graded exactly as submitted.

(3) Use a "comma (,)" to separate every third digit in a whole number that has 4 or more digits. Example: 5,384,200 (Exception: see Rule 7)

(4) Answer with two "zeros" or a "dash (-)" (also called a hyphen or minus) after the "decimal point (.)" for monetary ($) problems. A dollar sign ($) does not need to be entered in the answer box. Examples of acceptable answers: 4,832.00; 4,832.-; $4,832.00; or $4,832.- (Exception: see Rule 7)

(5) Answers must be written in the answer box on the website.

(6) **Group A students**: For Multiplication and Division in Abacus, round monetary calculations to the second place after the decimal point. For non-monetary calculations, round to the fifth place after the decimal point. Example: 2,745.12345

(7) As different countries designate different decimal and thousands separator if a period (.) is used to indicate the decimal place, the comma (,) must be used to separate groups of thousands; if a comma (,) is used to indicate the decimal place, the period (.) must be used to separate groups of thousands. An acceptable answer from Rule 3 is 5.384.200; acceptable answers for Rule 4 are: 4.832,00; 4.832,-; $4.832,00; or $4.832,-

Mathematics

(1) The answer must be submitted in the prescribed answer box, otherwise, it will not be scored.

(2) Answers will be scored "as-is" – that is, the answer will be graded exactly as submitted.

(3) You can use an abacus as a calculation tool, but you cannot use a calculator.

(4) A blank calculation sheet can be used, but an answer written on the calculation sheet will not be scored.

For further information, contact CAAA.

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(Appendix A: Group, Categories, Content)

Group	Category		Content & Degree of Difficulty	# of Questions	Score	Time Limit
A	I Mental Arithmetic	Multiplication	Questions of 4- and 5-digit (20 questions each), 6- and 7-digit (10 questions each) whole numbers. Examples: 2 digits × 2 digits, 3 digits × 2 digits, 3 digits × 3 digits, 4 digits × 3 digits, etc.	60	100	3 minutes
		Division	Questions of 4- and 5-digit (20 questions each), 6- and 7-digit (10 questions each) whole numbers. Examples: 4 digits ÷ 2 digits, 5 digits ÷ 3 digits, 6 digits ÷ 3 digits, 7 digits ÷ 4 digits, etc.	60	100	3 minutes
		Addition & Subtraction	$ Monetary questions for ten 3-digit numbers (10 questions), ten 3- and 4-digit numbers, ten 4-digit numbers, ten 4- and 5-digit numbers, and ten 6-digit numbers (5 questions each)	30	100	3 minutes
	II Abacus	Multiplication	Questions of 6- and 7-digit whole numbers; Monetary ($), non-monetary and mixed decimal questions for 8- and 9-digit numbers Examples: 3 digits × 3 digits, 4 digits × 3 digits (Whole number questions) 4 digits × 4 digits, 4 digits × 5 digits, etc. (Monetary ($), non-monetary and mixed decimal questions)	15	100	6 minutes
		Division	Questions of 5- and 6-digit whole numbers Monetary ($), non-monetary and mixed decimal questions for 7- and 8-digit numbers Examples: 5 digits ÷ 2 digits, 6 digits ÷ 3 digits, 7 digits ÷ 3 digits, 8 digits ÷ 3 digits, etc.	15	100	
		Addition & Subtraction	Monetary ($) questions of ten 6- and 7-digit mixed decimal; Monetary ($) questions for ten 7- and 8-digit mixed decimal	10	100	
	III Mathematics	Multiple Choice	The questions for each grade rest upon referencing curriculum standards of different countries and regions. Middle school and Open groups have four number calculations (multiplication and division), quadratic equations, fractional problems, and practical calculations. Questions are detailed in the mock paper.	15	150	15 minutes
		Fill Ins		15	150	
B	I Mental Arithmetic	Multiplication	2 digits × 1 digit, 3 digits × 1 digit Whole number questions (25 questions each)	50	100	3 minutes
		Division	3 digits ÷ 1 digit, 4 digits ÷ 1 digit Whole number questions (25 questions of each)	50	100	3 minutes
		Addition & Subtraction	Five 2-digit numbers (10 questions), six 2-digit numbers (10 questions), seven 2-digit numbers (5 questions), eight 2-digit numbers (5 questions)	30	100	3 minutes
	II Abacus	Multiplication	Questions of 4-, 5-, 6- and 7-digit whole numbers Examples: 2 digits × 2 digits, 2 digits × 3 digits, 3 digits × 3 digits, 4 digits × 3 digits, whole number questions	15	100	6 minutes

		Division	Questions for 4-, 5-, and 6-digit whole numbers Examples: 4 digits ÷ 2 digits, 5 digits ÷ 2 digits, 5 digits ÷ 3 digits, 6 digits ÷ 3 digits, 6 digits ÷ 4 digits, etc.	15	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	Multiple Choice	The questions for each grade rest upon referencing curriculum standards of different countries and regions. Middle school and Open groups have four number calculations (multiplication and division), quadratic equations, fractional problems, and practical calculations. Questions are detailed in the mock paper.	15	150	15 minutes
		Fill Ins		15	150	
C	**I Mental Arithmetic**	Mental Addition & Subtraction	Questions of five one-digit whole numbers	20	100	3 minutes
		Mental Addition & Subtraction	Mixed questions of two one-digit whole numbers and two 2-digit whole numbers	20	100	3 minutes
		Mental Addition & Subtraction	Mixed questions of one one-digit whole number and three 2-digit whole numbers	20	100	3 minutes
	II Abacus	Addition & Subtraction	Questions of seven 2-digit whole numbers.	20	300	6 minutes
	III Mathematics	Multiple Choice	The questions for each grade rest upon referencing curriculum standards of different countries and regions. Middle school and Open groups have four number calculations (multiplication and division), quadratic equations, fractional problems, and practical calculations. Questions are detailed in the mock paper.	15	150	15 minutes
		Fill Ins		15	150	