

ĐỀ THI 2 VÒNG CLB TOÁN TUỔI THƠ LIÊN TỈNH 19.1.2016

CHILDREN'S FUN MATHS JOURNAL

COMPETITION 2016

ROUND 1: RELAY RACE - Duration: 30 minutes for 6 problems

Problem 1. Calculate $\frac{5}{12.17} + \frac{3}{34.10} + \frac{7}{60.9} + \frac{9}{27.36}$.

Problem 2. Find the smallest whole number that, when divided by 9, 5 and 4, leaves remainder of 1, 1 and 3 respectively.

Problem 3. Given that the date of 20.11.2010 is a Saturday. Which day of the week is 20.11.2018 ?

Problem 4. A rhombus has diagonals of 60 cm and 80 cm, and a height of 48 cm. Find the length of its sides.

Problem 5. Find two distinct numbers, given that their sum is three times their difference, and their product is eight times their difference.

Problem 6. The following sequence of numbers was written on a board: 1, 2, 3, 4, ..., 200. Uyen erased three consecutive numbers and the sum of the remaining numbers is 19848. Find the three numbers that were erased.

ROUND 2: MATHEMATICS TOUR - Duration: 30 minutes for 6 problems

The first city: TP. Hồ Chí Minh

Problem 1. Find the digits a and b such that the number $2016ab$ is divisible by 2 and 9, and has a remainder of 3 when divided by 5.

Proceed to: Đà Nẵng

Problem 2. Find the whole number x, given that:

$$1 + 5 + 9 + 13 + \dots + x = 780.$$

Proceed to: Huế

Problem 3. Find x such that:

$$\left(1 + \frac{1}{2}\right) \cdot \left(1 + \frac{1}{3}\right) \cdot \left(1 + \frac{1}{4}\right) \cdots \left(1 + \frac{1}{x}\right) = 1008 \frac{1}{2}.$$

Proceed to: Hải Phòng

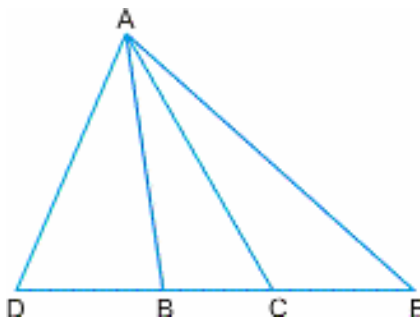
Problem 4. The price of a type of chalk in August dropped by 10% compared to that in June, but increased by 10% in October compared to that in August. How many percent has the price increased or decreased from June to October ?

Proceed to: Nam Định

Problem 5. Find the smallest whole number such that when it is multiplied by 12345679, the resulting product is a number having all of its digits equal to 8.

Proceed to: Hà Nội

Problem 6. Refer to the following diagram:



Given that $S_{ABC} = 4 \text{ cm}^2$, $S_{ADE} = 14 \text{ cm}^2$, $DB - CE = 1 \text{ cm}$, $BC = 2 \text{ cm}$. Find the length of DB .

Proceed to: TP. Hồ Chí Minh

Trên đây là các đề theo sơ đồ di chuyển của câu lạc bộ Sơn La

ROUND 3: FINALS - Duration: 5 minutes for EACH problem

Problem 1. Find the number \overline{abcd} given that $\overline{abcd3} - \overline{abcd} = 653 \cdot 5$.

Problem 2. A rectangular courtyard has its length equal to four times its width. It is extended on both its length and its width by 5 m each. The extended rectangular courtyard has an area bigger than that of the original one by 400 m^2 . Find the area of the original courtyard.

Problem 3. Given a quadrilateral $ABCD$. The lines AC and BD intersect at O .

Given that $S_{OAB} = 3 \text{ cm}^2$, $S_{ODA} = 6 \text{ cm}^2$, $S_{ABCD} = 15 \text{ cm}^2$. Find the area of the triangle OBC .

