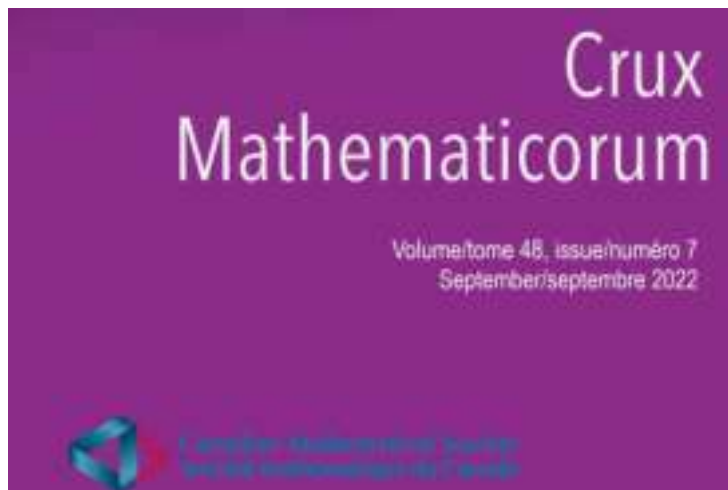


ΔΗΜΟΣΙΕΥΣΗ ΣΕ ΔΙΕΘΝΕΣ ΠΕΡΙΟΔΙΚΟ ΜΑΘΗΜΑΤΙΚΩΝ



Εξαιρετική διάκριση για τη μαθήτρια **του 1ου Προτύπου ΓΕΛ Χαλκίδας Βασιλική Λαλιώτη**, με τη δημοσίευση της λύσης που έδωσε στο πρόβλημα MA158 του περιοδικού της Καναδικής Μαθηματικής Εταιρείας Crux Mathematicorum. Η λύση παρουσιάστηκε στη σελ. 377 του τεύχους Σεπτεμβρίου 2022 της ηλεκτρονικής έκδοσης αυτού : <https://cms.math.ca/publications/crux/issue/?volume=48&issue=7>

MA158. Proposed by Arvind Mahadevan.

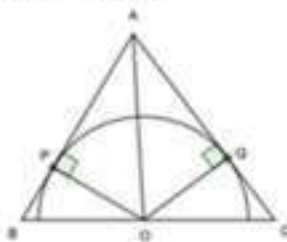
A semi-circle is inscribed in $\triangle ABC$ such that it is tangent to AB and AC and its diameter lies along the side BC . If $AB = 13$, $AC = 14$ and $BC = 15$, find the radius of the semi-circle. (Solvers may find Heron's formula for the area of a triangle with sides a , b , and c useful: $A = \sqrt{s(s-a)(s-b)(s-c)}$, where $s = \frac{a+b+c}{2}$.)

We received 7 correct solutions. We present the solution by Vasiliki Lalioti.

The semi-perimeter of the given triangle is $s = \frac{13+14+15}{2} = 21$, so by Heron's formula we get

$$\text{Area}(\triangle ABC) = \sqrt{21 \cdot (21 - 13) \cdot (21 - 14) \cdot (21 - 15)} = 84. \quad (1)$$

Denote by O the center of the inscribed semicircle and by P and Q the points of tangency, as shown in the diagram below:



Then $OP \perp AB$ and $OQ \perp AC$; moreover, $OP = OQ = r$, where r denotes the radius of the semicircle. It follows that

$$\begin{aligned} \text{Area}(\triangle ABC) &= \text{Area}(\triangle ABO) + \text{Area}(\triangle AOC) \\ &= \frac{OP \cdot AB}{2} + \frac{OQ \cdot AC}{2} = \frac{r(AB + AC)}{2} = \frac{27r}{2}. \end{aligned} \quad (2)$$

Comparing (1) and (2) we conclude $\frac{27r}{2} = 84$, whence $r = \frac{56}{9}$.

Διαγωνισμός Εφηβικού Διηγήματος και Ποίησης “Γρηγόρης Πεντζίκης”



Στον 10^ο Λογοτεχνικό Διαγωνισμό Εφηβικού Διηγήματος και Ποίησης “Γρηγόρης Πεντζίκης” η Φιλοθέη Τεμπονέρα (ψευδώνυμο: Εσπέρα Μοτσενίγου) ,μαθήτρια του 1^{ου} Πρότυπου ΓΕΛ Χαλκίδας, , κατέκτησε την 1η Θέση (μεταξύ 1500 συμμετοχών) στο 10ο Λογοτεχνικό Διαγωνισμό Εφηβικού Διηγήματος και Ποίησης «Γρηγόρης Πεντζίκης» με το ποίημα «Οριστέα έννοια».

Ο 10ος Λογοτεχνικός Διαγωνισμός, διοργανώθηκε κατά το τρέχον σχολικό έτος 2021-2022 από τον Επιστημονικό και Πολιτιστικό Σύλλογο «Εκπαιδευτικός Κύκλος», σε συνεργασία με το Περιφερειακό Κέντρο Εκπαιδευτικού Σχεδιασμού Ανατολικής Μακεδονίας και Θράκης (ΠΕ.Κ.Ε.Σ) και υλοποιήθηκε με την (Αρ. Πρωτ. Φ15/ 12256/Δ2/04-02-2022, Απόφαση έγκρισης της Γενικής Γραμματείας Πρωτοβάθμιας και Δευτεροβάθμιας Εκπαίδευσης και Ειδικής Αγωγής του Υπουργείου Παιδείας και Θρησκευμάτων (Υ.ΠΑΙ.Θ), μετά από θετική γνωμοδότηση του Ινστιτούτου Εκπαιδευτικής Πολιτικής (Ι.Ε.Π).

Τα βραβευθέντα κείμενα θα αναρτηθούν στην επίσημη ιστοσελίδα του διαγωνισμού στη διεύθυνση <https://www.educircle.gr/pentzikis>

Σχολείο-Πρέσβης του Ευρωπαϊκού Κοινοβουλίου



Το **1ο Πρότυπο ΓΕΛ Χαλκίδας** επιλέχθηκε να συμμετάσχει για το σχολικό έτος 2021-22 στο πρόγραμμα του Ευρωπαϊκού Κοινοβουλίου Σχολεία Πρέσβεις. Η ομάδα των μαθητών και των εκπαιδευτικών του προγράμματος ανέπτυξε δράσεις και συνεργασίες για τις αξίες της Ενωμένης Ευρώπης, οι οποίες αξιολογήθηκαν πολύ θετικά (σκορ: 99/100), και γι' αυτό του δόθηκε η δυνατότητα να υποβάλει αίτηση συνέχειας του προγράμματος και κατά το σχολικό έτος 2022-23. Έτσι το σχολείο μας συνεχίζει με μια διευρυμένη ομάδα εκπαιδευτικών, τους 12 μαθητές-πρέσβεις και την ομάδα μαθητών-φίλων του προγράμματος τις δράσεις του που θα αφορούν τα δικαιώματα των νέων στην ΕΕ

4. Final evaluation scores per participating school

School	Region	Total Points
High School - Lyceum of Chalki "S. Papanastasiou"	South Aegean	100
Daily General Lyceum of Soufli	Eastern Macedonia and Thrace	100
3rd General Lyceum of Serres	Central Macedonia	100
2nd General Lyceum of Nafplion	Peloponnese	100
2nd Exemplary General Lyceum of Athens	Attica	100
"Gennadios" - 1st Exemplary Lyceum of Athens	Attica	100
Music Lyceum of Mytilene	South Aegean	99
1st Model General Lyceum of Chalkida	Central Greece	99
3rd General Lyceum of Argos	Peloponnese	98
5th General Lyceum of Agrinio	Western Greece	98
2nd General Lyceum of Pylae	Central Macedonia	97
2nd General Lyceum of Neo Makedi	Attica	97

Best practices:

- Creation of a mobile app as a digital EU Info Point to encourage more visits with immediate notifications for new uploads about EU issues.
- Creation of an anti-war poster to enhance the idea at school of the need for solidarity and peace
- Volunteer social action: Recommendations registered on Conference platform entail the encouragement for the donation of marrow.
- Collaborative, experiential, autonomous learning with a social perspective: joint organization (with Avlonari Senior High School) of a 'Women's Day' entailing an MEP keynote talk about gender-based violence, a presentation of the causes and effects of this violence through art and a discussion with a visual artist on the disintegration of stereotypical beliefs about women.

Evaluation:

PART B - Main Actions (Total points: 60/70)				PART E (Total points: 10/10)
	Participation in the platform of the Conference for the Future of Europe	Action on an EU-value campaign or a political priority	Action on Europe Day	Second activity on an EU-value campaign or a political priority
Topic selection/Description of action	5/5	5/5	5/5	3/3
Preparation	5/5	7/7	6,5/7	3/3
Completion of action	10/10	12,5/13	13/13	4/4
Total points	20/20	24,5/25	24,5/25	10/10
PART C - Creation and use of digital/physical EU Info Point (Total points: 10/10)				
Creation of EU Info Point	Ways Info Point is used	Evaluation of EU Info Point	Attachments	Total points
5/5	2/2	1/1	2/2	10/10
PART D - TOGETHER.EU Volunteers' Net: Participation & Actions (Total points: 10/10)				
Activities re: Together.eu platform	Impact of activities	Plan on future activities in view of the 2024 European Elections	Attachments	Total points
5/5	2/2	2/2	1/1	10/10
TOTAL SCORE: 99/100				

Selected hyperlinks to activities:

- <https://1lyk-chalk.eyv.sch.gr/?p=2361>
- https://futureu.europa.eu/processes/Democracy/1/6/proposals/255917?filter%5Bcategory_id%5D%5B%5D=11&locale=el&page=35
- <https://futureu.europa.eu/processes/Health/1/3/proposals/255785?locale=el>
- https://www.youtube.com/watch?v=ari3gE6JGu4&ab_channel=1o%CE%93%CE%95%CE%9B%CE%A...

1st Model General Lyceum of Chalkida, Central Greece

Description of actions and of related activities:

An EPAS project highly enriched with actions that reveal the Ambassadors' creativity, originality, motivation and sensitivity. In particular:

- *Participation in the Platform of the Conference for the Future of Europe*

The Ambassadors got activated in two exceptionally original and socially sensitive ways. Having concluded that lack of democracy can be put down to the lack of effective information, having realized during a discussion with an advisor to the Regional Governor about the investment of EU funding how little young people know about matters closely related to their life, and having looked closely at the platform of the Conference and the number of visits to it, they created an app to encourage more visits with immediate notifications for new uploads about EU issues. Secondly, they took action to encourage the donation of marrow.

- *Action on an EU-value campaign or a political priority*

They joined the Senior High School of Avlonari in the organization of a common action on gender-based violence with Mrs Eliza Vozenberg as the keynote speaker. Indicatively, the event included a presentation of the causes and effects of this kind of violence, a discussion about the disintegration of stereotypical beliefs about women with a visual artist, and the creation of a video on "Violence to women through art". The school's action was extensively disseminated through a variety of effective means.

- *Action on Europe Day*

Aiming to make the need for the peaceful co-existence and solidarity of the EU member states more prominent, the Junior Ambassadors carried out a solidarity action for Ukraine by offering humanitarian aid (food and commodities), created anti-war posters and relevant information materials, and took part in the painting contest "Peace bows" (by EPLO).

- *Second activity on an EU-value campaign or a political priority*

Given the EP's political priority of enhancing collaboration and communication among individuals and reinforcing the exchange of views on the future of Europe, the Ambassadors took part in the Student Conference carried out by the EPAS Senior High School of Amfikleia, where they presented their work and exchanged their thoughts and ideas.

- *EU Info point*

As relates the EU Info Point, this was both physical and online (<https://lyk-chalk.evv.sch.gr/?p=2361>), and was addressed to students, teachers and all other individuals who may be interested in EU matters. Both have been constantly updated. In the online Info Point, a special section is devoted to the EPAS Programme. An excellent practice is the creation of a mobile app for those who wish to be immediately and easily informed.

- *Participation in the together.eu*

the Junior Ambassadors were highly active. A thematic panel on women and democracy during an online event organized by EPLO, two awards in the painting exhibition "Peace bows", getting informed about the EP's taking stock of the consequences of the Russian invasion in Ukraine, and expressing their condolences for the EP President's death are only some of the actions the Ambassadors joined as members of the EU community. Their plan for EE2024 essentially consists of taking actions to strengthen the role of the EP in the EU citizens' daily life.