

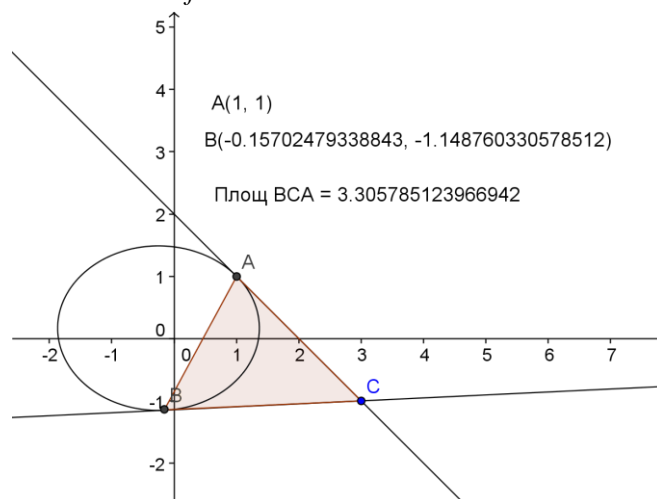


THIRD NATIONAL STUDENT OLYMPIAD
IN COMPUTER MATHEMATICS
„ACADEMICIAN STEFAN DODUNEKOV“
SOFIA UNIVERSITY ST. KLIMENT OHRIDSKI
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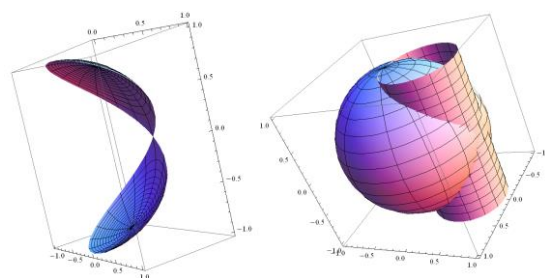
Answers for group A

- $\sqrt{3}$
- 3.863516302041688
- Prime.
- $(1+x)^2(x-2+\sqrt{3})(x-2-\sqrt{3})(x^2+x+1)$
- $1, a > 0, b > 0$ or $-1, a < 0, b < 0$
- $\frac{1}{279936}$
- To check.
- 2, 0, 1, 2014
- 5
- 1022
- Zero matrix of order 3.
- $\frac{49358153634071}{32676706920}$
- $x > 1$
- $x = \frac{5}{3}, y = \frac{10}{3}$
- 10.995574287564276
- $\left[\frac{4}{9}, 1\right) \cup (1, 4]$
- 3.
- $\frac{1}{e}$
- $\pi \ln \frac{1007}{2}$
- $L = 6, S = \frac{3}{8}\pi$
- $4+2\sqrt{5} = 8.47213595499958$

22. The area of BCA is 3.305785123966942.



23.



- $6\pi^2$
- 909720
- 3405
- 6
- 2
- $\left(\frac{2014}{741}\right)^{741}$
- 4.243574442089537