

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

197. Three Lines

time limit per test: 1 second
memory limit per test: 256 megabytes

This problem is worth 60 points.

You're given three lines on the coordinate plane. No pairs of the lines are parallel.

Figure out the area of the triangle formed by the intersection points of the three lines. In other words, label the points of interesection of lines 1 and 2, lines 1 and 3, and lines 2 and 3, A , B , and C , respectively. Then, your task is to find the area of triangle ABC .

Input
The input consists of three lines, each containing the equation for one of the lines, in $y = mx + b$ form, where m represents the slope of the line, and b represents the y-intercept of the line.

Output
Output a single decimal number representing the area of the triangle formed by the intersection points of the three lines. Do not round your answer. Your answer doesn't have to be exactly equal to ours; as long as it's within a few decimal places it will be judged as correct.

Examples

input	Copy
$y = 2x + 3$ $y = -2x + 9$ $y = x - 2$	
output	Copy
28.166666666666664	

input	Copy
$y = 2x + 3$ $y = -2x + 9$ $y = -x - 27$	
output	Copy
793.5000000000001	

input	Copy
$y = 2x + 3$ $y = -2x + 90$ $y = 7x - 2$	
output	Copy
478.4027777777778	

Note
Here is the graph of the first example case:

CodeRams Practice Problem Archive

Finished

Practice

About Contest

The archive of CodeRams practice problems from the 2019-20 season. The problems were made to be similar to CodeQuest problems, more information here:
<https://www.lockheedmartin.com/en-us/who-we-are/communities/codequest.html>

Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

Submit?

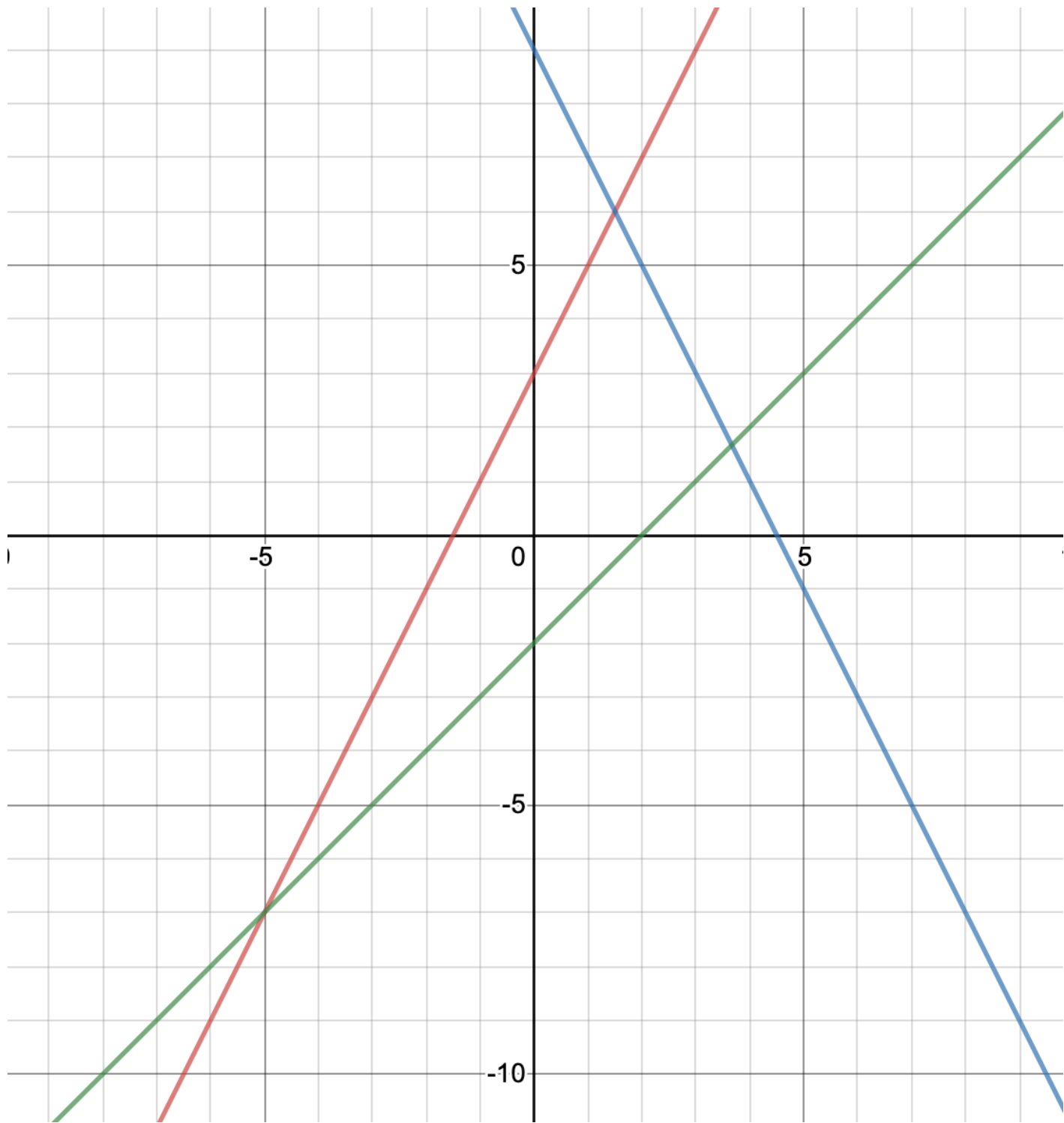
Language: GNU G++20 13.2 (64 bit, win)

Choose file: Choose File No file chosen

Submit

Last submissions

Submission	Time	Verdict
277116986	Aug/19/2024 04:23	Accepted



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