Grade 8: Assessment Item Illustrating 8.EE.C.8.a

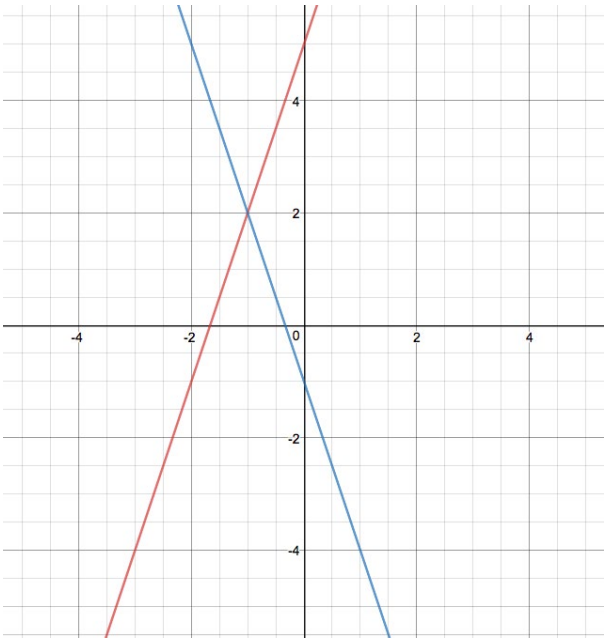
Source: IM 6–8 Math[1]

Domain: Expressions and Equations

Cluster and/or Standard(s): 8.EE.C.8.a - Analyze and solve pairs of simultaneous solutions. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.

Rigor/Complexity[2]: Conceptual Level 2

Calculator: No



Enter a system of equations represented by these two lines. Enter one equation in each response box.

Enter the solution to the system.

Answer Key: y=3x+5, y=-3x-1, x=-1, y=2 [equivalent forms of the equations accepted; equations may be input in any order]

Elaboration on Alignment:
This item reflects the key understanding that the solution to a system of equations in two variables corresponds to the point of intersection of their graphs by connecting across representations.

---

[1] IM 6–8 Math was originally developed by Open Up Resources and authored by Illustrative Mathematics, and is copyright 2017-2019 by Open Up Resources. It is licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0). OUR's 6–8 Math Curriculum is available at https://openupresources.org/math-curriculum/. Adaptations and updates to IM 6–8 Math are copyright 2019 by Illustrative Mathematics, and are licensed under the Creative Commons Attribution 4.0 International License (CC BY 4.0).

[2] A Framework to Evaluate Cognitive Complexity in Mathematics Assessments