

Grade 8 - Systems of Linear Equations - Test

Common Core 8.EE.C.8a, 8.EE.C.8b, 8.EE.C.8c · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 20-point test checks systems of two linear equations solved by graphing, substitution and elimination (Common Core 8.EE.C.8a, 8.EE.C.8b and 8.EE.C.8c). Work alone, show every step, and write each final answer clearly. You have 45 minutes. Calculators are not needed unless a question says so.

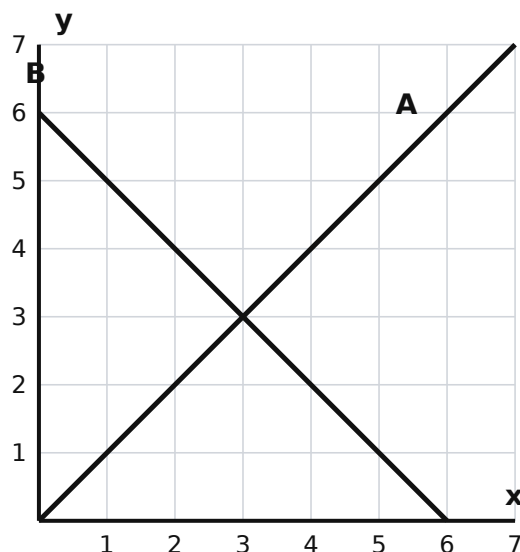
About this test

- Grade: Grade 8
- Chapter: Systems of Linear Equations
- Standards: 8.EE.C.8a, 8.EE.C.8b, 8.EE.C.8c
- Time: 45 minutes
- Total: 20 points

Question 1 - Check [2 pts]

Is $(4,1)$ a solution of $x+2y=6$ and $3x-y=11$? Show your check.

Question 2 - Graph [3 pts]



A: $y = x$ and B: $y = -x + 6$.

The graph shows $y = x$ and $y = -x + 6$. Find the solution and check it.

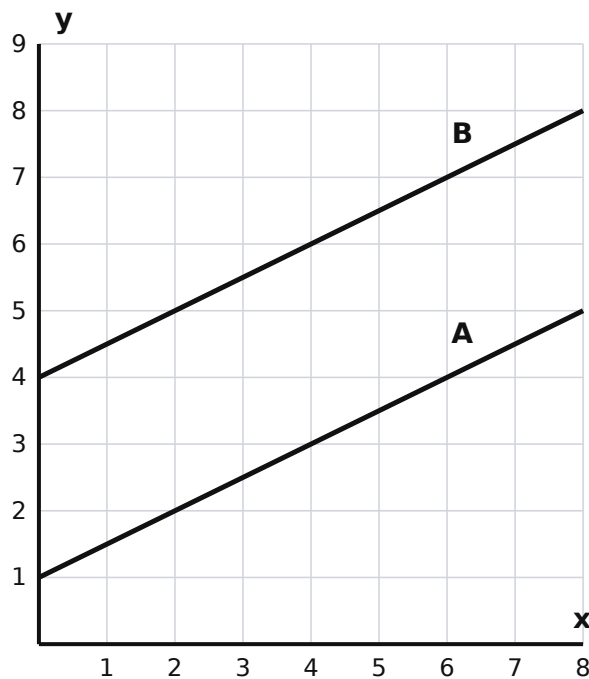
Question 3 - Substitution [3 pts]

Solve by substitution: $y = 2x + 1$ and $3x + y = 16$.

Question 4 - Elimination [3 pts]

Solve by elimination: $4x + y = 17$ and $2x - y = 7$.

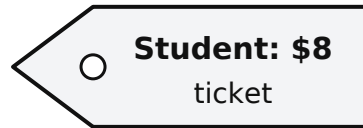
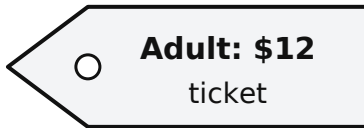
Question 5 - Number of solutions [3 pts]



Lines A and B.

- How many solutions does the system graphed have? (1 point)
- Explain using slopes and intercepts. (2 points)

Question 6 - Tickets [3 pts]



Prices for the school play.

Adult tickets cost \$12 and student tickets cost \$8. Sofia buys 7 tickets for \$68. Write a system and find how many of each she bought.

Question 7 - Boat [2 pts]

A kayaker paddles 9 miles per hour downstream and 5 miles per hour upstream. Find the speed of the current.

Question 8 - Explain [1 pt]

Explain why the solution of a system is the point where the graphs intersect.