



GRADE 8 · EXPRESSIONS & EQUATIONS · HOMEWORK

SYSTEMS OF TWO EQUATIONS

Today's goal: I can understand that solutions to a system of two linear equations correspond to points of intersection of their graphs, solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing and solve real-world and mathematical problems leading to two linear equations in two variables.



Pick your peppers!

Everyone does Mild & Medium. Then climb as high as you can.



Medium
Digit the Fox



Spicy
Blaze the Dragon



Extra Spicy
Pi the Owl



REMEMBER The solution is the meeting point. Cancel and disagree → none. Cancel and agree → infinitely many.



FAMILY CORNER

No need to remember this math yourself! Ask your student to teach you Mr DJ's example, then try the first Mild problem together.



MEDIUM

Digit the Fox: Stretch your brain.

1 Solve $x + y = 12$ and $x - y = 2$.

Answer

2 Solve $y = 3x$ and $x + y = 16$.

Answer

- 3 Check whether $(3, 4)$ solves $x + y = 7$ and $2x - y = 2$.

Answer

- 4 Two tickets cost £11 together. An adult ticket costs £3 more than a child's. Find both prices.

Answer



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Stopped at $x = 7$.



SPICY

Blaze the Dragon: Bring the heat!

- 5 How many solutions do $y = 5x + 2$ and $y = 5x + 9$ have?

Answer

6 How many solutions do $y = 2x - 3$ and $4y = 8x - 12$ have?

Answer

7 Explain what the solution to a system MEANS on a graph.

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

8 Ali solves a system, gets $x = 6$, and writes “solution: 6”. Explain what is missing and why.

Answer



How did this sheet feel?



Easy for me



Just right



Made me think

Stuck? Watch Mr DJ explain it

Step-by-step video lessons on YouTube: [youtube.com/
@MathWithMrDJ](https://www.youtube.com/@MathWithMrDJ)

Brain break: daily puzzles

Three new math puzzles every day, free:
puzzles.mathwithmrdj.com