



GRADE 8 · EXPRESSIONS & EQUATIONS · HOMEWORK

SOLVING LINEAR EQUATIONS

Today's goal: I can solve linear equations in one variable, including cases with one solution, infinitely many solutions, or no solutions and solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.



Pick your peppers!

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



Mild

Tan the Turtle



Medium

Digit the Fox



Spicy

Blaze the Dragon



Extra Spicy

Pi the Owl

WATCH MR DJ SOLVE

Expand $5(2x - 3)$.

1 $5 \times 2x = 10x$ and $5 \times -3 = -15$.

Answer: **$10x - 15$**



REMEMBER One solution, none, or infinitely many. Distribute to every term. Substitute back.



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.



MILD

Tan the Turtle: Slow and steady. Warm up!

1 Solve $6x + 5 = 29$.

Answer:



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Sign slip.

**MEDIUM****Digit the Fox:** Stretch your brain.

2 Solve $4(x - 1) = 16$.

Answer

3 Solve $9x + 1 = 4x + 26$.

Answer

4 Solve $\frac{1}{3}x - 2 = 4$.

Answer

**SPICY****Blaze the Dragon:** Bring the heat!

5 Solve $8x + 3 = 8x - 2$.

Answer

6 Solve $3(2x + 4) = 6x + 12$.

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

7 Nia says $7x + 2 = 7x + 2$ has no solution because the x cancels. Correct her.

Answer



How did this sheet feel?



Easy for me



Just right



Made me think

Stuck? Watch Mr DJ explain it

"Solving Two Step Algebraic Equations: Step By Step Guide" on YouTube: youtube.com/@MathWithMrDJ

Brain break: daily puzzles

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