



GRADE 7 · EXPRESSIONS & EQUATIONS · PRACTICE

WRITING & SOLVING EQUATIONS

Today's goal: I can use variables to represent quantities in real-world problems, use variables to represent quantities in mathematical problems and construct simple equations to solve problems.



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



REMEMBER

Undo operations in **reverse** order: deal with addition and subtraction first, then multiplication and division. Whatever you do to one side, do to the other. Check every answer by substituting it back into the ORIGINAL equation.



MILD

Tan the Turtle: Slow and steady. Warm up!

1 Solve $5x + 3 = 28$.

Answer

2 Solve $6x - 4 = 26$.

Answer



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Divided by 5 first.



🔊 **MEDIUM**

Digit the Fox: Stretch your brain.

3 Solve $3x + 11 = 2$.

Answer

4 Check your answer to question 3 by substituting.

Answer

5 Solve $\frac{1}{2}x + 4 = 10$.

Answer

6 Solve $8 - 2x = 14$.

Answer

7 Check question 6 by substituting, showing each step.

Answer



SPICY

Blaze the Dragon: Bring the heat!

- 8 Your answers to questions 1 and 2 are the same. Does that mean the equations are the same? Explain.

Answer

- 9 Write an equation for “5 less than 3 times a number is 20” and another for “3 less than 5 times a number is 20”. Solve both and explain why word order matters.

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](https://www.youtube.com/@MathWithMrDJ)

Brain break: daily puzzles

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