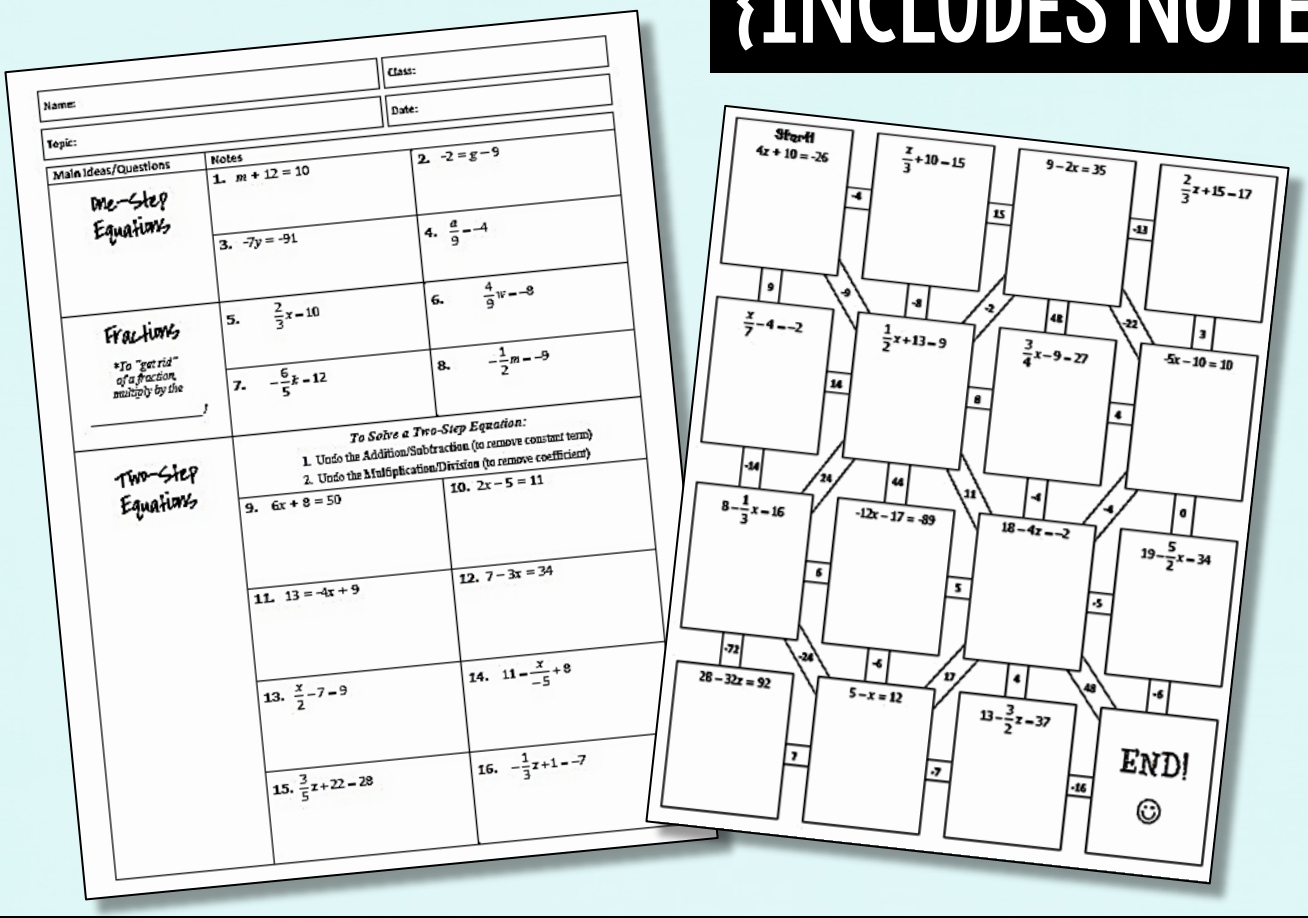
{INCLUDES NOTES!}




# TWO-STEP EQUATIONS

# MAZE ACTIVITY

Created by: ALL THINGS ALGEBRA

| Name: | Date: |
|---|---|
| Topic: | Class: |

| Main Ideas/Questions | Notes/Examples | |
|---|---|---|
| **One-Step Equations** | **1.** $m + 12 = 10$ | **2.** $-2 = g - 9$ |
| | **3.** $-7y = -91$ | **4.** $\frac{a}{9} = -4$ |
| **Fractions**<br><br>To "get rid" of a fraction, multiply by the<br><br>_____! | **5.** $\frac{2}{3}x = 10$ | **6.** $\frac{4}{9}w = -8$ |
| | **7.** $-\frac{6}{5}k = 12$ | **8.** $-\frac{1}{2}m = -9$ |
| **Two-Step Equations** | **To Solve a Two-Step Equation:**<br>**1.** Undo the **Addition/Subtraction** (to remove constant term)<br>**2.** Undo the **Multiplication/Division** (to remove coefficient) | |
| | **9.** $6x + 8 = 50$ | **10.** $2n - 5 = 11$ |
| | **11.** $13 = -4k + 9$ | **12.** $7 - 3y = 34$ |

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| | | |
|---|---|---|
| | **13.** $\frac{x}{2} - 7 = 9$ | **14.** $11 = \frac{c}{-5} + 8$ |
| | **15.** $\frac{3}{5}x + 22 = 28$ | **16.** $-\frac{1}{3}m + 1 = -7$ |
| | **17.** $-10 + \frac{7}{4}p = -38$ | **18.** $15 = 9 - \frac{1}{2}x$ |
| Watch Out! | **The examples below are different in that the multiplication/division is done FIRST, followed by the addition/subtraction.** | |
| | **19.** $\frac{x + 11}{8} = -3$ | **20.** $\frac{n - 5}{-2} = -7$ |
| | **21.** $1 = \frac{a - 13}{-6}$ | **22.** $4 = \frac{w + 8}{9}$ |

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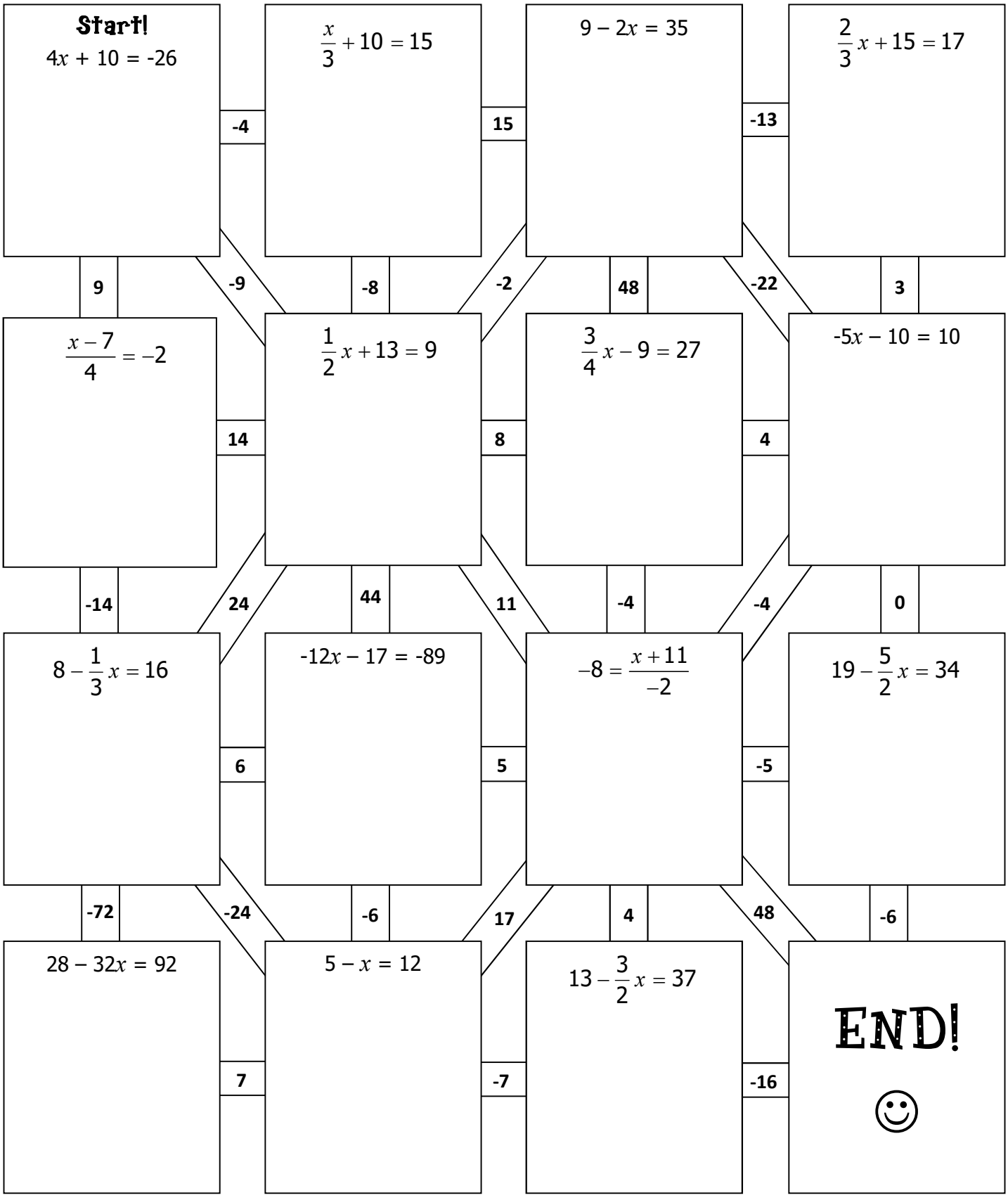
# Two-Step Equation Maze!

**Directions:** Use your solutions to navigate through the puzzle. **SHOW ALL STEPS!!!!**

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| Name: | Date: |
|---|---|
| Topic: | Class: |

| Main Ideas/Questions | Notes/Examples | |
|---|---|---|
| **One-Step Equations** | **1.** $m + 12 = 10$<br>$-12 \quad -12$<br>$m = -2$ | **2.** $-2 = g - 9$<br>$+9 \quad +9$<br>$7 = g$ |
| | **3.** $\frac{-7y}{-7} = \frac{-91}{-7}$<br>$y = 13$ | **4.** $\frac{a}{9} = -4 \cdot 9$<br>$a = -36$ |
| **Fractions**<br>To "get rid" of a fraction, multiply by the reciprocal ! | **5.** $\frac{3}{2} \cdot \frac{2}{3}x = 10 \cdot \frac{3}{2}$<br>$x = 15$ | **6.** $\frac{9}{4} \cdot \frac{4}{9}w = -8 \cdot \frac{9}{4}$<br>$w = -18$ |
| | **7.** $\frac{-5}{6} \cdot -\frac{6}{5}k = 12 \cdot \frac{-5}{6}$<br>$k = -10$ | **8.** $-2 \cdot -\frac{1}{2}m = -9 \cdot -2$<br>$m = 18$ |
| **Two-Step Equations** | **To Solve a Two-Step Equation:**<br>1. Undo the **Addition/Subtraction** (to remove constant term)<br>2. Undo the **Multiplication/Division** (to remove coefficient) | |
| | **9.** $6x + 8 = 50$<br>$-8 \quad -8$<br>$\frac{6x}{6} = \frac{42}{6}$<br>$x = 7$ | **10.** $2n - 5 = 11$<br>$+5 \quad +5$<br>$\frac{2n}{2} = \frac{16}{2}$<br>$n = 8$ |
| | **11.** $13 = -4k + 9$<br>$-9 \quad -9$<br>$\frac{4}{-4} = \frac{-4k}{-4}$<br>$k = -1$ | **12.** $7 - 3y = 34$<br>$-7 \quad -7$<br>$\frac{-3y}{-3} = \frac{27}{-3}$<br>$y = -9$ |

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**13.** $\frac{x}{2} - 7 = 9$

$+7 \quad +7$

$2 \cdot \frac{x}{2} = 16 \cdot 2$

$\boxed{x = 32}$

**14.** $11 = \frac{c}{-5} + 8$

$-8 \quad -8$

$-5 \cdot 3 = \frac{c}{-5} \cdot -5$

$\boxed{-15 = c}$

**15.** $\frac{3}{5}x + 22 = 28$

$-22 \quad -22$

$\frac{5}{3} \cdot \frac{3}{5} x = 6 \cdot \frac{5}{3}$

$\boxed{x = 10}$

**16.** $-\frac{1}{3}m + 1 = -7$

$-1 \quad -1$

$-3 \cdot -\frac{1}{3}m = -8 \cdot -3$

$\boxed{m = 24}$

**17.** $-10 \div \frac{7}{4}p = -38$

$+10 \quad +10$

$\frac{4}{7} \cdot \frac{7}{4} p = -28 \cdot \frac{4}{7}$

$\boxed{p = -16}$

**18.** $15 = 9 - \frac{1}{2}x$

$-9 \quad -9$

$-2 \cdot 6 = -\frac{1}{2}x \cdot -2$

$\boxed{-12 = x}$

## Watch Out!

**The examples below are different in that the multiplication/division is done FIRST, followed by the addition/subtraction.**

**19.** $\frac{x+11}{8} = -3 \cdot 8$

$x + 11 = -24$

$-11 \quad -11$

$\boxed{x = -35}$

**20.** $\frac{n-5}{-2} = -7 \cdot -2$

$n - 5 = 14$

$+5 \quad +5$

$\boxed{n = 19}$

**21.** $1 = \frac{a-13}{-6} \cdot -6$

$-6 = a - 13$

$+13 \quad +13$

$\boxed{7 = a}$

**22.** $4 = \frac{w+8}{9} \cdot 9$

$36 = w + 8$

$-8 \quad -8$

$\boxed{28 = w}$

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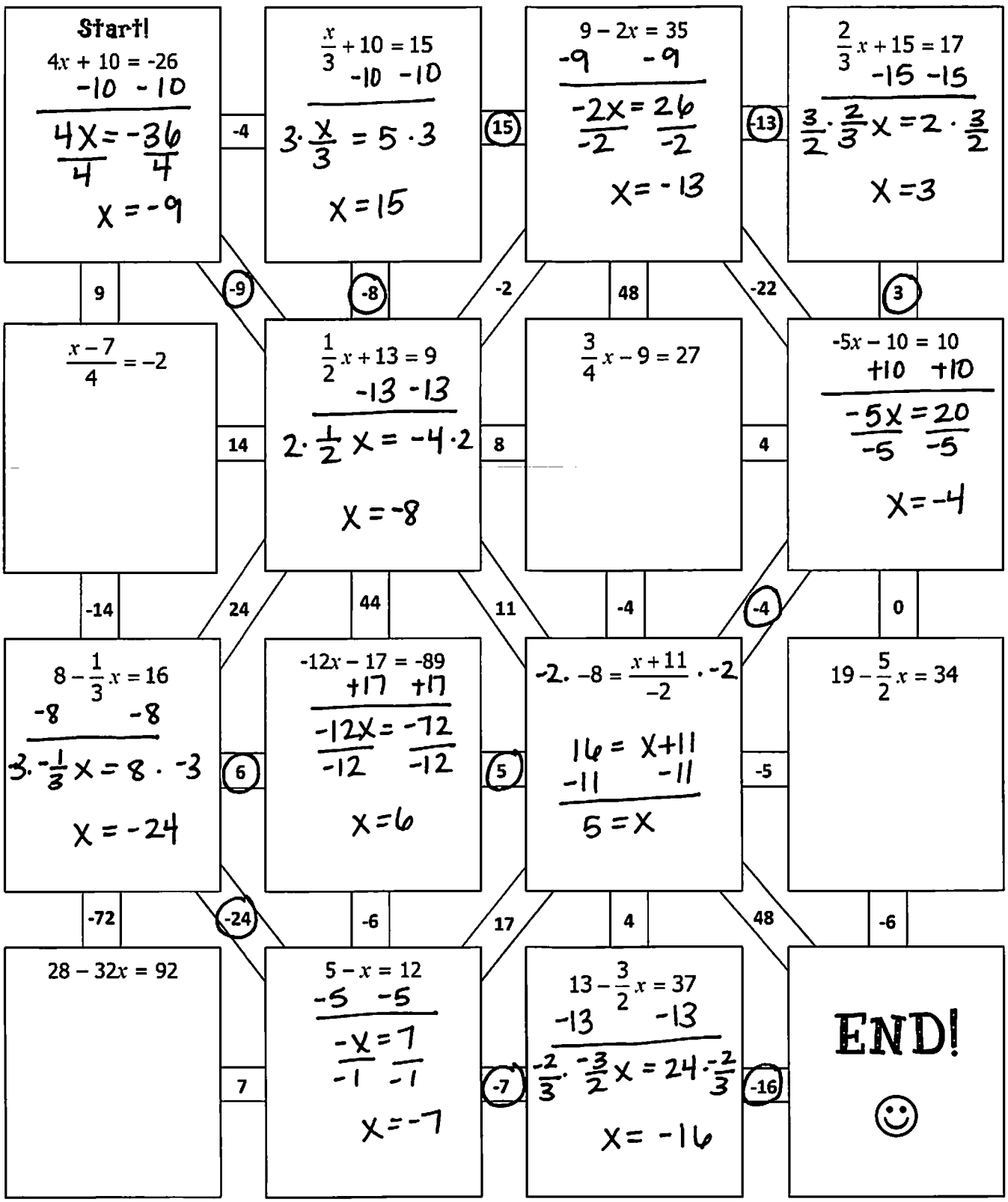
# tWo-steP eQuATioN MaZe!

**Directions:** Use your solutions to navigate through the puzzle. **SHOW ALL STEPS!!!!**

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