Solving Equations

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Equations Involving Addition

1 $y + 6 = 9$

2 $x + 3 = 1$

3 $-3 = a + 4$

4 $14 + m = 20$

5 The sum of a number and 3 is -2. Find the number.

5 Three more than the product of a number and 4 is 15. Find the number.

6 Five less than three times a number is 1. Find the number.

7 The product of 2 and a number is increased by 9. The result is -17. What is the number?

8 If you subtract 3 from twice a number, the result is 25. What is the number?

Two-Step

1 $3x + 2 = 23$

2 $-2y - 7 = 3$

3 $-3n - 8 = 7$

4 $\frac{k}{-2} + 7 = 10$

Equations involving subtraction

6 $x - 2 = 1$

7 $y - 3 = 4$

8 $r - 4 = -2$

9 $-9 = q - 8$

10 If you decrease a number by 4, the result is -5. Find the number.

+ one- step –

Equations involving Multiplication

1 $20 = 4z$

2 $-8g = 24$

3 $30 = -6e$

4 $-9h = -72$

5 The product of a number and 5 is -35. Find the number.

Equations involving Division

6 $\frac{x}{4} = 7$

7 $\frac{m}{-6} = 6$

8 $-12 = \frac{r}{2}$

9 $-15 = \frac{g}{-3}$

10 The quotient of a number and -4 is 5. What is the number?

× One- Step ÷

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Answer Key!

Solving Equations

Equations involving Addition

1 $y + 6 = 9$

$-6 \quad -6$

$y = 3$

2 $x + 3 = 1$

$-3 \quad -3$

$x = -2$

3 $-3 = a + 4$

$-4 \qquad -4$

$a = -7$

4 $14 + m = 20$

$-14 \qquad -14$

$m = 6$

5 The sum of a number and 3 is -2. Find the number.

$n + 3 = -2$ $\qquad$ $n = -5$

5 Three more than the product of a number and 4 is 15. Find the number.

$4n + 3 = 15$ $\qquad$ $n = 3$

6 Five less than three times a number is 1. Find the number.

$3n - 5 = 1$ $\qquad$ $n = 2$

7 The product of 2 and a number is increased by 9. The result is -17. What is the number?

$2n + 9 = -17$ $\qquad$ $n = -13$

8 If you subtract 3 from twice a number, the result is 25. What is the number?

$2n - 3 = 25$ $\qquad$ $n = 14$

Two-Step

1 $3x + 2 = 23$

$-2 \quad -2$

$\frac{3x}{3} = \frac{21}{3}$

$x = 7$

2 $-2y - 7 = 3$

$+7 \quad +7$

$\frac{-2y}{-2} = \frac{10}{-2}$

$y = -5$

3 $-3n - 8 = 7$

$+8 \quad +8$

$\frac{-3n}{-3} = \frac{15}{-3}$

$n = -5$

4 $\frac{k}{-2} + 7 = 10$

$-7 \quad -7$

$(-2)\frac{k}{-2} = 3(-2)$

$k = -6$

Equations involving subtraction

6 $x - 2 = 1$

$+2 \quad +2$

$x = 3$

7 $y - 3 = 4$

$+3 \quad +3$

$y = 7$

8 $r - 4 = -2$

$+4 \quad +4$

$r = 2$

9 $-9 = q - 8$

$+8 \quad +8$

$q = -1$

10 If you decrease a number by 4, the result is -5. Find the number.

$n - 4 = -5$ $\quad$ $n = -1$

+ one- step –

Equations involving Multiplication

1 $\frac{20}{4} = \frac{4z}{4}$

$z = 5$

2 $\frac{-8g}{-8} = \frac{24}{-8}$

$g = -3$

3 $\frac{30}{-6} = \frac{-6e}{-6}$

$e = -5$

4 $\frac{-9h}{-9} = \frac{-72}{-9}$

$h = 8$

5 The product of a number and 5 is -35. Find the number.

$5n = -35$ $n = -7$

Equations involving Division

6 $\frac{x}{4} = 7$

$x = 28$

7 $\frac{m}{-6} = 6$

$m = -36$

8 $-12 = \frac{r}{2}$

$r = -24$

9 $-15 = \frac{g}{-3}$

$g = 45$

10 The quotient of a number and -4 is 5. What is the number?

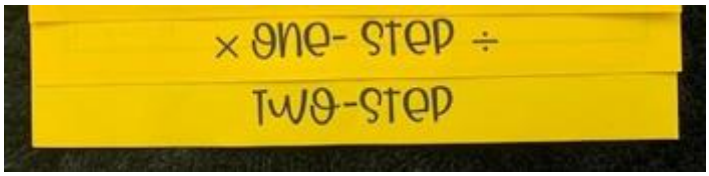
$\frac{n}{-4} = 5$ $n = -20$

× One- Step ÷

Directions:

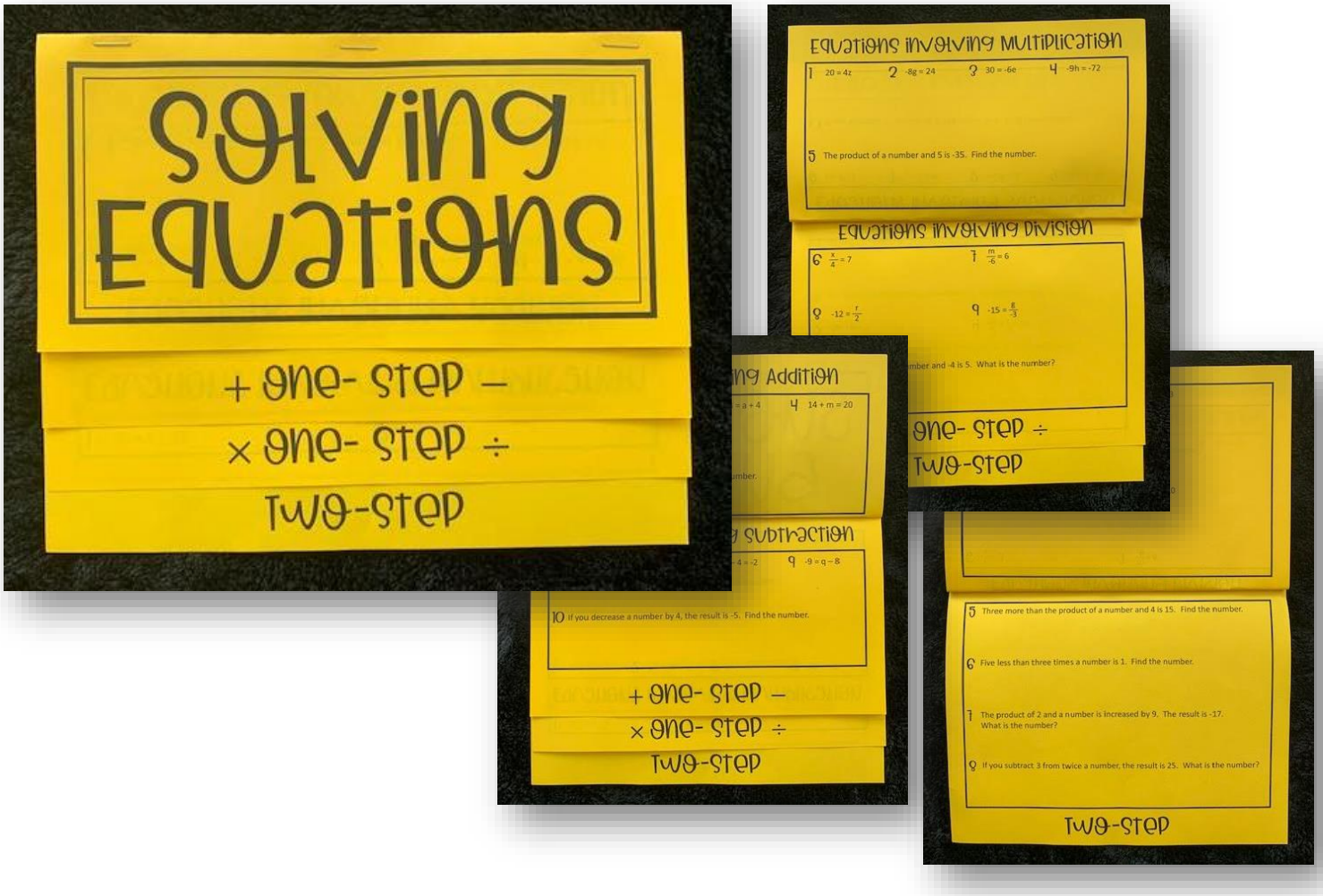
Print pages 1&2, 3&4 (5&6 , 7&8 for the answer key) front to back. On my printer, I use the option to **print double-sided and to flip along the short edge.** If you print single-sided and then photocopy, you must manually flip pages 2 and 4 before placing them in the copy machine.

Line up the bottom of the two pages as shown:



Fold over the top portion and secure with a few staples.

The final product should look like this:



Solving Equations

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Equations involving Addition

① $y + 6 = 9$ ② $x + 3 = 1$ ③ $-3 = a + 4$ ④ $14 + m = 20$

⑤ The sum of a number and 3 is -2. Find the number.

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⑥ Five less than three times a number is 1. Find the number.

⑦ The product of 2 and a number is increased by 9. The result is -17. What is the number?

⑧ If you subtract 3 from twice a number, the result is 25. What is the number?

Two-Step

① $3x + 2 = 23$

② $-2y - 7 = 3$

③ $-3n - 8 = 7$

④ $\frac{k}{-2} + 7 = 10$

Equations involving Subtraction

⑥ $x - 2 = 1$

⑦ $y - 3 = 4$

⑧ $r - 4 = -2$

⑨ $-9 = q - 8$

⑩ If you decrease a number by 4, the result is -5. Find the number.

+ One-Step −

Equations involving Multiplication

① $20 = 4z$ ② $-8g = 24$ ③ $30 = -6e$ ④ $-9h = -72$

⑤ The product of a number and 5 is -35. Find the number.

Equations involving Division

⑥ $\frac{x}{4} = 7$ ⑦ $\frac{m}{-6} = 6$

⑧ $-12 = \frac{r}{2}$ ⑨ $-15 = \frac{g}{-3}$

⑩ The quotient of a number and -4 is 5. What is the number?

× One- Step ÷

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Answer Key!

Solving Equations

Equations involving Addition

① $y + 6 = 9$
$-6 \quad -6$
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$-3 \quad -3$
$x = -2$

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$-4 \quad -4$
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$-14 \quad -14$
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$n + 3 = -2$ $\quad$ $n = -5$

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$(-2)\frac{k}{-2} = 3\,(-2)$

$k = -6$

Equations involving Subtraction

⑥ $x - 2 = 1$

$+2 \quad +2$

$x = 3$

⑦ $y - 3 = 4$

$+3 \quad +3$

$y = 7$

⑧ $r - 4 = -2$

$+4 \quad +4$

$r = 2$

⑨ $-9 = q - 8$

$+8 \quad +8$

$q = -1$

⑩ If you decrease a number by 4, the result is -5. Find the number.

$n - 4 = -5$ $\qquad$ $n = -1$

+ One-Step −

Equations involving Multiplication

① $\frac{20}{4} = \frac{4z}{4}$

$z = 5$

② $\frac{-8g}{-8} = \frac{24}{-8}$

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$5n = -35$ $n = -7$

Equations involving Division

⑥ $(4)\frac{x}{4} = 7\ (4)$

$x = 28$

⑦ $(-6)\frac{m}{-6} = 6\ (-6)$

$m = -36$

⑧ $(2)12 = \frac{r}{2}(2)$

$r = -24$

⑨ $(-3)15 = \frac{g}{-3}(-3)$

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⑩ The quotient of a number and -4 is 5. What is the number?

$\frac{n}{-4} = 5$ $n = -20$

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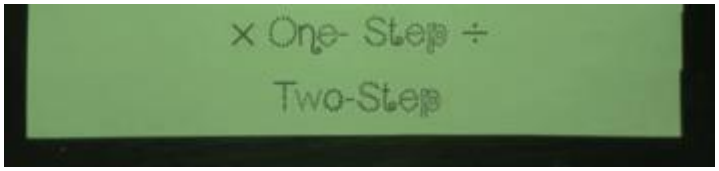

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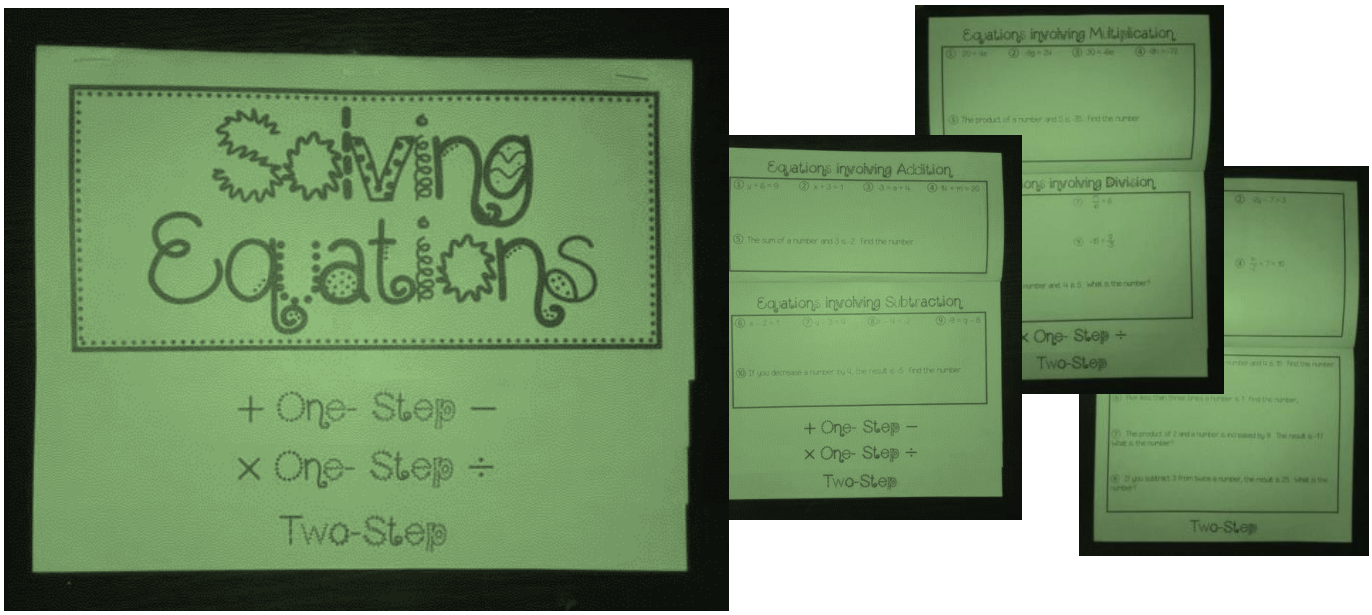
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