

Name: _____

Date: _____

Notes Key

(GREEN TEXT) CHAPTER 2 NOTES – Equation Solving

Date: _____

2.2 – Evaluation Expressions

2.3 – Like Terms

2.6 – Using Addition and Subtraction to Solve Equations

2.7 – Using Division and Multiplication to Solve Equations

2.10 – Solving Equations Using More than One Step

2.11 – Solving Equations with Variables on Both Sides

2.12 – The Distributive Property

2.13 – Solving Equations with Brackets

Review: _____

Test: _____

What You'll Learn:

2.2 – using correct vocabulary to describe aspects of equations

2.3 – strategies to add and subtract terms

2.6/2.7/2.10/2.11/2.13 – strategies to solve equations of varying difficulty

2.12 – how to correctly apply the distributive property

What is the opposite of each operation?

Operation	Opposite Operation
+	-
-	+
x	÷
÷	x

What is an expression (may need to check glossary)?

*a mathematical phrase that does not have an 'equals' sign
ex. $2x$, $3x-5$*

What is an equation (may need to check glossary)?

*a mathematical phrase that does have an 'equals' sign
ex. $x+3=7$*

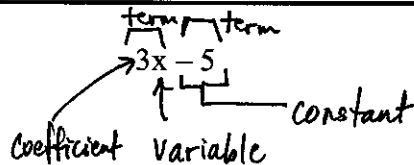
2.2 - Evaluation Expressions

Focus: Learn vocabulary identified with equation solving.

Main Ideas:

Warmup:

Name as many parts of the given expression as possible:



What is a variable?

a letter or symbol that represents an unknown or changing value. ex. x, y, t

What is a coefficient?

a number that multiplies a variable (the big number in front of a variable) ex. $2x$
coefficient

What is a term?

a number, a variable, or the product of numbers and variables
Terms are separated by + or -. $-5y, 2, 2x^2yz$

What is a constant?

a term in an expression or equation that is just a number.
ex. In $2x - 4$, -4 is the constant as it cannot change.

What is an expression?

a mathematical phrase that does not have an 'equals' sign
ex. $3x^2 - 2x + 7$

What is an equation?

a mathematical phrase that does have an 'equals' sign
ex. $3x^2 - 2x + 7 = 1$

What is substitution?

A specific value is assigned to a variable in an expression or equation. Use brackets when substituting
ex. $3x + 5$ when $x = 1$ $3(1) + 5$

ex1

Identify the

- a) variable(s)
- b) coefficient(s)
- c) constant(s)

in each expression:

- i) $2 - 7p$
- ii) $3x^2 - y - 5$
- iii) $x - 6b + 1$

ex2

How many terms are in each question in example 1?

ex3

Evaluate for $x = -2$
and $y = 3$

- a) $xy + 2x$
- b) $3x^2 - 2y - 4$

(i) $2 - 7p$
constant coefficient variable

(ii) $3x^2 - y - 5$
variables: x, y
coefficients: $3, -1$
constants: -5

(iii) $x - 6b + 1$
variables: x, b
coefficients: $1, -6$
constant: 1

(i) 2 terms

(ii) 3 terms

(iii) 3 terms.

(a) $xy + 2x$
 $(-2)(3) + 2(-2)$
 $-6 + 2(-2)$
 $-6 + -4$
-10

(b) $3x^2 - 2y - 4$
 $3(-2)^2 - 2(3) - 4$
 $3(4) - 2(3) - 4$
 $12 - 6 - 4$
2

Reflection: Try to make a commitment to use the correct vocabulary over the course of this chapter. What do you have to work at in order to make this happen?

2.3 - Like Terms

Focus: To be able to identify, count, and combine applicable terms.

Main Ideas:

Warmup:

If you had 3 apples (3a) and 4 bananas (4b) in one bowl, and 2 apples (2a) and one banana (b) in a second bowl, and combined them, what would you have?

Answer in words but also show work using abbreviations given in brackets above.

5 apples and 5 bananas

5a and 5b

$$\textcircled{3a} + \boxed{4b} + \textcircled{2a} + \boxed{b}$$

$$= 5a + 5b$$

Ex1

How many terms in each expression, and what are they?

- a) $2x - 3y + 7$
b) $x^2 - 6x + 4y - 1$

(a) $2x - 3y + 7$: 3 terms $2x, -3y, 7$

(b) $x^2 - 6x + 4y - 1$: 4 terms $x^2, -6x, 4y, -1$

What are like terms?

Terms with the same variable(s) raised to the same exponent(s)

ex. 2 and -5 $3x$ and $-2x$ $4x^2$ and x^2

$3xy$ and $6xy$

ex2

Simplify

- a) $7x + 10x + 3$
b) $-9a + 2a$
c) $6m + 4 - m$
d) $8x - 1 + x - 7$
e) $3xy - 2y + x$

(a) $\textcircled{7x} + \textcircled{10x} + 3$
 $= 17x + 3$

(c) $\textcircled{6m} + 4\textcircled{-m}$
 $5m + 4$

(e) $3xy - 2y + x$
no like terms

(b) $\textcircled{-9a} + \textcircled{2a}$
 $= -7a$

(d) $\textcircled{8x} - \textcircled{1} + \textcircled{x} - \textcircled{7}$
 $9x - 8$

ex3

Simplify

a) $2m + n - 6 + n - 3m$

b) $3x^2 - 4 + 2x - 3x^2 + x$

c) $xy + 2xy^2 - 2xy$

(a) $(2m) + (n) - 6 + (n) - (3m)$

$-m + 2n - 6$

(b) $(3x^2) - 4 + (2x) - (3x^2) + (x)$

$3x - 4$

(c) $(xy) + 2xy^2 - (2xy)$

$-xy + 2xy^2$

Ex4

Write the expression

$2x - 3y + 5x^2 - 4$

three other ways

$+2x - 3y + 5x^2 - 4$

(i) $5x^2 + 2x - 3y - 4$

(ii) $-3y + 5x^2 - 4 + 2x$

(iii) $-3y - 4 + 2x + 5x^2$

many other answers also

Reflection: Explain what 'like terms' are and how they're used for adding and subtracting.

2.6 – Using Addition and Subtraction to Solve Equations

Focus: Solving one-step equations using inverse operations.

Main Ideas:

Warmup:

Go to p.71 and answer #1, 5, 9, 12, 16, & 18
Write answers to the right:

What is 'solving by inspection'?

ex1

How do you solve $x - 2 = 8$ algebraically?

- ① $x=4$ ⑤ $m=7$ ⑨ $y=-4$ ⑫ $x=10$
 ⑬ $t=22$ ⑰ $x=4$

Solving by inspection is when you solve an equation visually, without having to do any work on paper.

$$\begin{array}{r}
 x - 2 = 8 \\
 \swarrow \quad \searrow \\
 \cancel{+2} \quad \cancel{+2} \\
 \hline
 x = 10
 \end{array}$$

YES

Think: Is $10 - 2$ equal to 8?

YES

Questions to ask yourself:

- ① What is being done to x ?
IT'S BEING SUBTRACTED BY 2
- ② What's the opposite of that?
To ADD 2
- ③ Do the opposite to both sides.
ADD 2 TO BOTH SIDES.
(sides are separated by the 'equals' sign)

What is the opposite of each operation?

Operation	Opposite Operation
+	-
-	+
x	÷
÷	x

ex2

Solve $n + 5 = 11$
algebraically. Ask
yourself the relevant
questions and show
all work.

$$\begin{array}{r|l} n + 5 & = 11 \\ \cancel{-5} & \quad -5 \end{array}$$

$$n = 6$$

Is $6 + 5$ equal to 11?
YES

What's being done to n ?

5 IS BEING ADDED TO IT

What's the opposite of that?

SUBTRACTING 5

Do that to both sides

(sides separated by 'equals' sign)

SUBTRACT 5 TO BOTH SIDES

ex3

Solve & show work:

a) $y + 4 = -2$

b) $x - 7 = -1$

c) $3 + p = 2$

$$(a) \begin{array}{r|l} y + 4 & = -2 \\ \cancel{-4} & \quad -4 \end{array}$$

$$\underline{y = -6}$$

$$(b) \begin{array}{r|l} x - 7 & = -1 \\ \cancel{+7} & \quad +7 \end{array}$$

$$\underline{x = 6}$$

$$(c) \begin{array}{r|l} 3 + p & = 2 \\ \text{rearrange left side} & \end{array}$$

$$\begin{array}{r|l} p + \cancel{3} & = 2 \\ \cancel{-3} & \quad -3 \end{array}$$

$$\underline{p = -1}$$

ex4

Solve & show work:

a) $-4 + m = 6$

b) $10 = -3 + x$

$$(a) -4 + m = 6$$

rearrange left side

$$\begin{array}{r|l} m - \cancel{4} & = 6 \\ \cancel{+4} & \quad +4 \end{array}$$

$$\underline{m = 10}$$

$$(b) 10 = -3 + x$$

rearrange right side

$$\begin{array}{r|l} 10 & = x - \cancel{3} \\ \cancel{+3} & \quad +3 \end{array}$$

$$\underline{13 = x}$$

Reflection: What are the questions you must ask yourself in order to solve an equation algebraically using inverse operations?

2.7 – Using Division and Multiplication to Solve Equations

Focus: Solving one-step equations using inverse operations.

Main Ideas:

Warmup:

Solve $y + 3 = 8$ algebraically and describe the questions you asked yourself throughout the process. Solve $3x = 27$ using the same questions.

ex1
Solve by inspection and then algebraically:
 $2x = 6$

ex2 – Solve and show work:

- a) $3y = -12$
- b) $-2w = -10$
- c) $4 = -x$
- d) $3 = 2m$
- e) $-2a = 0$

$$y + 3 = 8$$

$$\begin{array}{r|l} 3 & -3 \end{array}$$

$$y = 5$$

Is $5 + 3$ equal to 8?
Yes

$$3x = 27$$

$$\begin{array}{r|l} 3 & 3 \end{array}$$

$$x = 9$$

Is 3×9 equal to 27? YES

Inspection:

2 times what is equal to 6?

$$x = 3$$

Algebraically:

$$2x = 6$$

$$\begin{array}{r|l} 2 & 2 \end{array}$$

$$x = 3$$

What's being done to x ?
IT'S BEING MULTIPLIED BY 2.
What's the opposite of that?
TO DIVIDE BY 2
DIVIDE BY 2 TO BOTH SIDES.

(a) $3y = -12$

$$\begin{array}{r|l} 3 & -12 \\ \hline y & -4 \end{array}$$

$$y = -4$$

(b) $-2w = -10$

$$\begin{array}{r|l} -2 & -10 \\ \hline w & 5 \end{array}$$

$$w = 5$$

(c) $4 = -x$

$$\begin{array}{r|l} 1 & 4 \\ \hline -x & -4 \end{array}$$

$$-4 = x$$

(d) $3 = 2m$

$$\begin{array}{r|l} 2 & 3 \\ \hline m & 1.5 \end{array}$$

$$\frac{3}{2} = m \text{ or } 1.5 = m$$

(e) $-2a = 0$

$$\begin{array}{r|l} -2 & 0 \\ \hline a & 0 \end{array}$$

$$a = 0$$

ex3

a) Do a 'check' for ex2a

$$\begin{array}{l|l}
 3y = -12 & \text{Left Side (LS)} \\
 y = -4 & \text{Right Side (RS)} \\
 \hline
 & -12 \\
 \text{Substitute} & \\
 \text{answer} & \text{3(-4)} \\
 & -12 \\
 & \checkmark \text{ check works!}
 \end{array}$$

b) Do a check for ex2b

$$\begin{array}{l|l}
 \text{LS} & \text{RS} \\
 -2w & -10 \\
 -2(5) & \\
 -10 & \checkmark \text{ check works!}
 \end{array}$$

answer was $w = 5$

ex4 - Solve and check:

$$\frac{x}{2} = 4$$

$$\frac{x}{2} = 4$$

What is being done to x ?
IT'S BEING DIVIDED BY 2

$$\cancel{x} \frac{x}{\cancel{x}} = 4(2)$$

What's the opposite?
MULTIPLY BY 2
DO IT TO BOTH SIDES.

$$\underline{\underline{x = 8}}$$

ex5 - Solve & show work:

a) $\frac{y}{7} = 2$

b) $\frac{m}{5} = -6$

c) $-4 = \frac{x}{-3}$

(a) $\frac{y}{7} = 2$ (b) $\frac{m}{5} = -6$ (c) $-4 = \frac{x(-3)}{-3}$

$\frac{y}{7} = 2(7)$ $m = -30$ $12 = x$

$\underline{\underline{y = 14}}$

ex6

Do a check for 5b

$$\begin{array}{l|l}
 \text{LS} & \text{RS} \\
 \frac{m}{5} & -6 \\
 \frac{(-30)}{5} & \\
 -6 & \checkmark
 \end{array}$$

Reflection: Describe the process for doing a check.

2.10 – Solving Equations Using More Than One Step

Focus: Applying inverse operation strategies to solve multiple-step equations.

Main Ideas:

Warmup:

Solve $2x + 3 = 11$ by inspection.

What two things are happening to x ? What is the opposite of each?

Ex1 – Solve

$$2x + 3 = 11$$

Check your answer.

What are the steps to solving multi-step equations?

What number do you multiply by two and then add three to get 11? $x = 4$

- x is being multiplied by 2 \Rightarrow opp is to divide by 2
- x is being added by 3 \Rightarrow opp is to subtract 3.

When solving equations, do the $+/-$ first

$$\begin{array}{r|l} 2x + 3 = 11 & \\ -3 & -3 \end{array} \quad \text{subtract 3 to both sides}$$

$$2x = 8$$

$$\frac{2x}{2} = \frac{8}{2} \quad \text{divide by 2 on both sides.}$$

$$x = 4$$

LS	RS
$2x+3$	11
$2(4)+3$	
$8+3$	
11	

- 1.) Put together any like terms that are on the same side.
- 2.) What is happening to x ?
- 3.) What are the opposites?
- 4.) Do the opposites to both sides, but do the add/subtract step first.
- 5.) Do the multiply/divide step.
- 6.) Check

ex2 - Solve
 $3x - 7 = 8$

$$\begin{array}{r} 3x - 7 = 8 \\ +7 \quad +7 \\ \hline 3x = 15 \\ \hline x = 5 \end{array}$$

• x is being subtracted by 7 and multiplied by 3
 • opposite is to add 7 and divide 3.

ex3 - Solve
 a) $5x + 4 = -16$
 b) $3x + 2 + 2x = 7$
 c) $-m + 3 = -2 - 6$

(a) $5x + 4 = -16$
 $\begin{array}{r} 5x + 4 = -16 \\ -4 \quad -4 \\ \hline 5x = -20 \\ \hline x = -4 \end{array}$

(b) $(3x) + 2 + 2x = 7$
 $\begin{array}{r} 3x + 2 + 2x = 7 \\ -2 \quad -2 \\ \hline 5x = 5 \\ \hline x = 1 \end{array}$

(c) $-m + 3 = -2 - 6$
 $\begin{array}{r} -m + 3 = -8 \\ +3 \quad -3 \\ \hline -m = -11 \\ \hline m = 11 \end{array}$

ex4 - Solve
 a) $\frac{5x}{2} - 8 = -3$

a) $\frac{5x}{2} - 8 = -3$
 3 things happening to x
 subtract 8 / div by 2 / mult by 5
 opp: add 8 / mult 2 / div 5

(b) $(-24) - 1 = -2y - 7 + 4y$

b) $-24 - 1 = -2y - 7 + 4y$

$$\begin{array}{r} \frac{5x}{2} - 8 = -3 \\ +8 \quad +8 \\ \hline \frac{5x}{2} = 5 \end{array}$$

$$\begin{array}{r} -25 = 2y - 7 \\ +7 \quad +7 \\ \hline -18 = 2y \end{array}$$

$$\begin{array}{r} -18 = 2y \\ \hline -9 = y \end{array}$$

ex5 - Do a check for ex4b

(a) $\frac{5x}{2} = 5(2)$

$$\begin{array}{r} \frac{5x}{2} = 10 \\ \hline x = 2 \end{array}$$

Check for 4b: $-9 = y$

LS	RS
$-24 - 1$	$-2y - 7 + 4y$
-25	$-2(-9) - 7 + 4(-9)$
	$18 - 7 - 36$
	-25

↓

Reflection: How will you go about solving multi-step equations so that you are certain that your answer is correct? Explain

2.11 – Solving Equations With Variables on Both Sides

Focus: Applying inverse operation strategies to solve equations with variables on both sides.

Main Ideas:

Warmup:

For the equation $3x + 4 = 1 + 2x$, how can you get the $2x$ term to the left side? Try your strategy, and then solve for x .

ex1 – Solve and jot down the questions you ask yourself

$$3x + 1 = x - 5$$

What are the steps when the variable is on both sides?

ex2 – Solve and check

$$3x + 5x = -10 - 2x$$

$$3x + 4 = 1 + 2x \quad \text{adding } 2x. \text{ What's opposite?}$$

$$3x + 4 = 1 + 2x \quad \text{subtracting } 2x$$

$$\begin{array}{r} 3x + 4 = 1 + 2x \\ -2x \quad \quad -2x \\ \hline 1x + 4 = 1 \end{array} \quad \text{subtract } 2x \text{ to both sides}$$

$$1x + 4 = 1 \quad \text{or} \quad x + 4 = 1$$

$$\begin{array}{r} x + 4 = 1 \\ -4 \quad -4 \\ \hline x = -3 \end{array}$$

$$3x + 1 = x - 5$$

$$\begin{array}{r} 3x + 1 = x - 5 \\ -1x \quad \quad -1x \\ \hline 2x + 1 = -5 \end{array}$$

$$2x + 1 = -5$$

$$\begin{array}{r} 2x + 1 = -5 \\ -1 \quad \quad -1 \\ \hline 2x = -6 \end{array}$$

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

$$\underline{\underline{x = -3}}$$

- ① Any like terms on either side? NO
- ② How do I get $1x$ to the left side?
IT'S POSITIVE, SO SUBTRACT IT TO BOTH SIDES
- ③ What's being done to x ?
ADDING 1 AND MULT BY 2
- ④ What's the opposite?
SUBTRACT 1 AND DIVIDE BY 2.

- 1.) Combine any like terms on each side
- 2.) Get an x term to the other side so you're down to one x term.
- 3.) Ask what's happening to x ?
- 4.) What's the opposite?
- 5.) Do the opposite to both sides doing add/subtract first

$$\textcircled{3x} + \textcircled{5x} = -10 - 2x$$

$$\begin{array}{r} 8x = -10 - 2x \\ +2x \quad \quad +2x \\ \hline 10x = -10 \\ \frac{10x}{10} = \frac{-10}{10} \\ x = -1 \end{array}$$

check	LS	RS
	$3x + 5x$	$-10 - 2x$
	$\textcircled{3(-1)} + \textcircled{5(-1)}$	$-10 - 2\textcircled{(-1)}$
	$-3 + -5$	$-10 + 2$
	-8	-8

ex3 - solve and check
 $3x + 2 = -3x - 16$

$$\begin{array}{r} 3x + 2 = -3x - 16 \\ +3x \qquad \qquad +3x \\ \hline 6x + 2 = -16 \\ -2 \qquad \qquad -2 \\ \hline \end{array}$$

$$\frac{6x}{6} = \frac{-18}{6}$$

$$\underline{\underline{x = -3}}$$

check:

LS	RS
$3x + 2$	$-3x - 16$
$3(-3) + 2$	$-3(-3) - 16$
$-9 + 2$	$9 - 16$
-7	-7

ex4 - Solve
 $4x - 7 + 2x = -20 - 5$

$$\begin{array}{r} (4x) - 7 + (2x) = -20 - 5 \\ \hline 6x - 7 = -25 \\ +7 \qquad +7 \\ \hline \end{array}$$

$$\frac{6x}{6} = \frac{-18}{6}$$

$$\underline{\underline{x = -3}}$$

ex5 - Solve and check
 $3 + 2x = -x + 3 - 4x$

$$\begin{array}{r} 3 + 2x = (-x) + 3 - (4x) \\ \hline 3 + 2x = -5x + 3 \\ +5x \qquad +5x \\ \hline \end{array}$$

$$3 + 7x = 3$$

rearrange:

$$\begin{array}{r} 7x + 3 = 3 \\ -3 \qquad -3 \\ \hline \end{array}$$

$$\frac{7x}{7} = \frac{0}{7}$$

$$x = 0$$

check.

LS	RS
$3 + 2x$	$-x + 3 - 4x$
$3 + 2(0)$	$-1(0) + 3 - 4(0)$
$3 + 0$	$0 + 3 - 0$
3	3

Reflection: How do you get the x terms on the same side of the equation? Explain.

2.12 – The Distributive Property

Focus: To learn how to multiply a term into brackets.

Main Ideas:

ex1 – describe the steps
as you 'expand'
 $2(x + 5)$

$$2(x + 5)$$

multiply the number to the left of the bracket by each term in the bracket

$$2x + 10$$

2 times x equals $2x$

2 times 5 equals 10 (positive 10)

ex2 – Expand

- a) $3(x + 2)$
- b) $7(x + 1)$
- c) $-2(x + 6)$
- d) $4(x - 4)$
- e) $-(y - 3)$
- f) $3(5x - 2y - 2)$

$$(a) \quad 3(x + 2)$$

$$3x + 6$$

$$(d) \quad 4(x - 4)$$

$$4x - 16$$

$$(f) \quad 3(5x - 2y - 2)$$

$$15x - 6y - 6$$

$$(b) \quad 7(x + 1)$$

$$7x + 7$$

$$(e) \quad -(y - 3)$$

$$-1(y - 3)$$

neg x
neg
= pos.

$$(c) \quad -2(x + 6)$$

$$-2x - 12$$

$$-1y + 3$$

$$-y + 3$$

$$3(2x - 3) - 3(2x - 5)$$

$$(6x) - 9 - (6x) + 15$$

$$= 6$$

$$=$$

ex3 – Expand & Simplify

$$3(2x - 3) - 3(2x - 5)$$

ex4 - Expand & Simplify

a) $4(y-1) - (y+3)$

b) $2(x^2 - 2x + 3) - 3(x+4)$

(a) $4(y-1) - 1(y+3)$

$4y - 4 - 1y - 3$

$3y - 7$

(b) $2(x^2 - 2x + 3) - 3(x+4)$

$2x^2 - 4x + 6 - 3x - 12$

$2x^2 - 7x - 6$

Reflection: What do you have to be most careful of when working with distributive property?

2.13 – Solving Equations With Brackets

Focus: Learning to solve equations that involve distributive property.

Main Ideas:

Write down the steps and solve the following equation:

$$2(x - 3) - 5 = 13 - 4x$$

$$2(x-3) - 5 = 13 - 4x$$

$$2x - 6 - 5 = 13 - 4x$$

$$2x - 11 = 13 - 4x$$

$$+4x \qquad +4x$$

$$6x - 11 = 13$$

$$+11 \quad +11$$

$$\frac{6x}{6} = \frac{24}{6}$$

$$\underline{\underline{x = 4}}$$

① Expand brackets

② Combine like terms (same side only)

③ Get variable to same side
ADD 4x TO BOTH SIDE

④ What's happening to x?
SUBTRACT BY 11, MULT BY 6

⑤ What's the opposite?
ADD BY 11, DIV BY 6

ex1 – Solve & check

$$2(x - 3) = 2$$

$$2(x-3) = 2$$

$$2x - 6 = 2$$

$$+6 \quad +6$$

$$\frac{2x}{2} = \frac{8}{2}$$

$$\underline{\underline{x = 4}}$$

ex2 – Solve & check

$$4(n + 7) = -44 + 2(n + 6)$$

$$4(n+7) = -44 + 2(n+6)$$

$$4n + 28 = (-44) + 2n + 12$$

$$4n + 28 = -32 + 2n$$

$$-2n$$

$$-2n$$

$$2n + 28 = -32$$

$$-28 \quad -28$$

$$\frac{2n}{2} = \frac{-60}{2}$$

$$\underline{\underline{n = -30}}$$

ex3 - Solve

$$7(x-1) - 2(x-6) = 2(x-5) + 6$$

$$7(x-1) - 2(x-6) = 2(x-5) + 6$$

$$\textcircled{7x} - \textcircled{7} - \textcircled{2x} + \textcircled{12} = 2x - \textcircled{10} + \textcircled{6}$$

$$\begin{array}{r} 5x + 5 = 2x - 4 \\ -2x \quad -2x \end{array}$$

$$\begin{array}{r} 3x + 5 = -4 \\ -5 \quad -5 \end{array}$$

$$\frac{3x}{3} = \frac{-9}{3}$$

$$\underline{\underline{x = -3}}$$

ex4 - Solve

$$2(x+1) - (x+4) = 1$$

$$2(x+1) - 1(x+4) = 1$$

$$\textcircled{2x} + \textcircled{2} - \textcircled{1x} - \textcircled{4} = 1$$

$$\begin{array}{r} x - 2 = 1 \\ +2 \quad +2 \end{array}$$

$$\underline{\underline{x = 3}}$$

Reflection: Write the general steps in your words for solving an equation like that in ex4.