Sets & Steps
Math Practice & Worked Solutions

Algebra 1

Linear Systems: Substitution & Elimination | Algebra 1 | 3-Topic Bundle

3-topic bundle | 288 problems | Four activity formats

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01 **Solving Systems by Substitution**

View individual product and its full preview

02 **Solving Systems by Elimination**

View individual product and its full preview

03 **Choosing a Method for Linear Systems**

View individual product and its full preview

In every topic

Answer Bank Challenge	24 tasks
Grid Rounds	24 tasks
Match & Move	24 cards
Error Analysis & Strategy	24 tasks
Quick Answer Key and Full Worked Solutions	included
Teacher / Parent Use Guide and Terms of Use	included

Product previews

The following preview pages show the cover, all four activity formats, and worked examples for each included resource, in the listed order.

24 PDFs and 3 READMEs; 177 buyer PDF pages across the 3 products.

Preview pages are not included in the buyer page count. Check the list against resources you already own.

This is a fixed collection of the listed products. Purchase includes the existing individual resource files. To open a product's online preview, follow its title link and select View Preview.

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Sets & Steps
Math Practice & Worked Solutions

Algebra 1

Solving Systems by Substitution

Solving Systems by Substitution | A1-U06-P03

96 problems · Four activity formats

Topic focus

Across 96 tasks this topic asks for first invalid step, correction, and ordered pair, ordered pair, complete solution set and missing coordinate and k.

8 PDFs and a README; 57 buyer pages.

The following pages use the same questions, given data, and notation as the final files. Question/card serial numbers and internal IDs are omitted in this preview only. Table values and matching responses are retained. Full answer keys are not included.

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Algebra 1

Solving Systems by Substitution

Name: _____ **Date:** _____ **Class:** _____

Answer each question and record the matching bank letter. Give exact values. Give the whole requested response, including any reasoning the question asks for.

Substitution in the system $y = 2x + 4$ and $5y = 10x + 21$ collapses to $0 = 1$. Interpret the collapsed equation. State the complete solution set and justify it using the original system. Bank label: _____	It is known that $y = 2$. The pair satisfies $5x + 5y = 0$ and $kx + 5y = 24$. Recover the missing coordinate and determine k. Explain how each equation is used. Bank label: _____
Solve the system $y = x - 2$ and $2x\text{-}y = 7$ by substitution. Then verify the ordered pair in both original equations. Bank label: _____	Neither variable is displayed alone in the system $x + 5y = 25$ and $4x + 4y = 20$. Isolate x from the first equation, use substitution to solve, and check the result in both equations. Bank label: _____
Both equations give y in terms of x: $y = (x - 1) + 11$ and $y = -2x + 1$. Equate the two expressions, then find both coordinates of the solution. Bank label: _____	Solve the system $x = -y - 12$ and $2x + 6y = -52$ by substitution. Then verify the ordered pair in both original equations. Bank label: _____
Neither variable is displayed alone in the system $6x\text{-}y = 17$ and $-4x + 6y = -38$. Isolate x from the first equation, use substitution to solve, and check the result in both equations. Bank label: _____	Both equations give y in terms of x: $y = 2x - 4$ and $y = x - 5$. Equate the two expressions, then find both coordinates of the solution. Bank label: _____

Algebra 1

Solving Systems by Substitution

Name: _____ **Date:** _____ **Class:** _____

Answer each question and show your reasoning in the workspace. Give exact values rather than decimals unless the question supplies a decimal. Give the whole requested response, including any reasoning the question asks for.

The data table gives $x = -5$. The pair satisfies $2x + 3y = -28$ and $4x + 3y = k$. Recover the missing coordinate and determine k. Explain how each equation is used.

given coordinate	value
x	-5

The data table gives $x = 3$. The pair satisfies $2x + 2y = 18$ and $kx + 2y = -3$. Recover the missing coordinate and determine k. Explain how each equation is used.

given coordinate	value
x	3

The data table gives $x = 2$. The pair satisfies $2x + 6y = 34$ and $5x + 3y + k = 23$. Recover the missing coordinate and determine k. Explain how each equation is used.

given coordinate	value
x	2

Substitution in the system $y = -x$ and $3y = -3x + 1$ collapses to $0 = 1$. Interpret the collapsed equation. State the complete solution set and justify it using the original system.

Substitution in the system $y = 2x + 3$ and $4y = 8x + 12$ collapses to $0 = 0$. Interpret the collapsed equation. State the complete solution set and justify it using the original system.

For the system $y = -2x + 6$ and $4x + 3y = 10$, a student writes: “Substitute: $4x + 3 \cdot -2x + 6 = 10$.” Identify the first invalid step, repair it, solve the system, and verify the ordered pair.

Algebra 1

Solving Systems by Substitution

Name: _____ **Date:** _____ **Class:** _____

Begin at START. Answer the card, then find the matching final answer at the top of another card. Use the recording sheet for your reasoning. Visit each card once and continue to FINISH.

Incoming: $(-1, -7)$ Neither variable is displayed alone in the system $-x + 3y = 1$ and $2x + 7y = -15$. Isolate x from the first equation, use substitution to solve, and check the result in both equations. Your response: _____	**Incoming:** $(-3, -2)$ Neither variable is displayed alone in the system $3x - y = -6$ and $-3x + 4y = -3$. Isolate x from the first equation, use substitution to solve, and check the result in both equations. Your response: _____
Incoming: $(-4, -4)$ Substitution in the system $y = -2x - 2$ and $3y = -6x - 4$ collapses to $0 = 2$. Interpret the collapsed equation. State the complete solution set and justify it using the original system. Your response: _____	**Incoming:** No solution It is known that $y = -3$. The pair satisfies $3x + 4y = -21$ and $kx + 3y = 0$. Recover the missing coordinate and determine k. Explain how each equation is used. Your response: _____
Incoming: $(0, 3)$ Neither variable is displayed alone in the system $-x + 4y = 1$ and $-2x + 6y = 2$. Isolate x from the first equation, use substitution to solve, and check the result in both equations. Your response: _____	**Incoming:** $(-1, 0)$ Both equations give y in terms of x: $y = x + 2$ and $y = 2x + 4$. Equate the two expressions, then find both coordinates of the solution. Your response: _____

Algebra 1

Solving Systems by Substitution

Name: _____ **Date:** _____ **Class:** _____

Evaluate the supplied statement or method. Say whether it is correct, repair it if it is not, and verify the result exactly. Not every prompt contains an error.

Substitution in the system $y = -3x - 5$ and $2y = -6x - 10$ collapses to $0 = 0$. A student concludes that every point in the coordinate plane works. State the complete solution set and justify it using the original system. Compare these two claims about the displayed collapsed equation: A says that it alone completely describes the solution set in the coordinate plane; B says that the solution set must satisfy both the collapsed statement and the retained original equation. Decide which reasoning is valid, explain the difference, and give the complete solution set. If the collapsed statement is false, explain why both descriptions produce an empty set.

For the system $y = -2x - 16$ and $2x + 3y = -28$, a student writes: "Substitute: $2x + 3 \cdot -2x - 16 = -28$." Identify the first invalid step, repair it, solve the system, and verify the ordered pair.

Solving Systems by Substitution

Full Worked Solutions - excerpt

Worked example

Problem. Solve the system $y = x - 2$ and $2x - y = 7$ by substitution. Then verify the ordered pair in both original equations.

Answer. $(5, 3)$

Explanation and check.

Use the isolated relation $y = x - 2$; substitution gives $x = 5$, so $x = 5$. Back-substitution gives the other coordinate, $(5, 3)$. Substituting that pair into both original equations verifies both equalities.

Worked example

Problem. Solve the system $x = 3y$ and $-2x + 5y = 2$ by substitution. Then verify the ordered pair in both original equations.

Answer. $(-6, -2)$

Explanation and check.

Use the isolated relation $x = 3y$; substitution gives $-y = 2$, so $y = -2$. Back-substitution gives the other coordinate, $(-6, -2)$. Substituting that pair into both original equations verifies both equalities.

Sets & Steps
Math Practice & Worked Solutions

Algebra 1

Solving Systems by Elimination

Solving Systems by Elimination | A1-U06-P04

96 problems · Four activity formats

Topic focus

Across 96 tasks this topic asks for first error, corrected row, and ordered pair, complete solution set, aligned system and ordered pair, multiplier and surviving equation or impossibility justification and ordered pair.

8 PDFs and a README; 56 buyer pages.

The following pages use the same questions, given data, and notation as the final files. Question/card serial numbers and internal IDs are omitted in this preview only. Table values and matching responses are retained. Full answer keys are not included.

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Algebra 1

Solving Systems by Elimination

Name: _____ **Date:** _____ **Class:** _____

Answer each question and record the matching bank letter. Give exact values. Give the whole requested response, including any reasoning the question asks for.

Solve the system $5x + 4y = -7$ and $x - 4y = 13$ by choosing addition or subtraction so a variable cancels immediately. Verify the result in both original equations. Bank label: _____	One coefficient pair in $2x - 3y = 2$ and $2x - 2y = 4$ is already aligned. Solve by elimination. Verify the result in both original equations. Bank label: _____
Use the ready cancellation in $3x$-$y = 14$ and $-3x + 2y = -7$ to determine the ordered pair. Verify the result in both original equations. Bank label: _____	Without scaling either equation, eliminate a variable and solve the system $4x + y = -25$ and $7x + y = -40$. Verify the result in both original equations. Bank label: _____
For the system $5x + 3y = 0$ and $9x - 3y = 0$, explain whether addition or subtraction creates the cancellation, then solve. Verify the result in both original equations. Bank label: _____	For the system $3x - 3y = 15$ and $-3x - 5y = 17$, explain whether addition or subtraction creates the cancellation, then solve. Verify the result in both original equations. Bank label: _____
Choose a nonzero multiplier for one row of $x + 3y = 16$ and $7x + 9y = 28$ and solve by elimination. Check the ordered pair in both originals. Bank label: _____	Use one whole-equation scaling before combining the equations in $16x + 21y = -137$ and $4x + 4y = -28$. Check the ordered pair in both originals. Bank label: _____

Algebra 1

Solving Systems by Elimination

Name: _____ **Date:** _____ **Class:** _____

Answer each question and show your reasoning in the workspace. Give exact values rather than decimals unless the question supplies a decimal. Give the whole requested response, including any reasoning the question asks for.

Rewrite each equation in aligned standard form before eliminating for $2(x+2)-3y=3$ and $-3x+2y=-1$. Verify the final ordered pair in the original displayed equations.	A student's elimination work contains one first invalid step for $2x-2y=-4$ and $4x-3y=-8$: "Multiply $E1$ by 2 but leave its right side as -4." Identify the first error, give the corrected combination, solve, and verify the ordered pair.
Determine k so that $E1+$ kE2 eliminates the specified variable, and give the surviving equation for $E1$: $2x-3y=-10$ and $E2$: $3x-3y=-6$; eliminate x.	Carry out the indicated elimination and interpret the constant statement without discarding the original constraint for $x-2y=-2$ and $2x-4y=-4$ by forming $-2E1+E2$.
Simplify the system carefully, align like terms, and then solve by elimination for $5x-3y=-6+2x$ and $2x+4y=32$. Verify the final ordered pair in the original displayed equations.	The linear structure is hidden. Normalize both rows before forming an elimination combination for $0.4x+0.3y=1.0$ and $-0.4x-0.6y=0.8$. Verify the final ordered pair in the original displayed equations.

Algebra 1

Solving Systems by Elimination

Name: _____ **Date:** _____ **Class:** _____

Begin at START. Answer the card, then find the matching final answer at the top of another card. Use the recording sheet for your reasoning. Visit each card once and continue to FINISH.

Incoming: $(0, 0)$

Scale exactly one equation in $2x - 2y = 16$ and $4x - 5y = 39$ to create cancellation, then solve. Check the ordered pair in both originals.

Your response: _____

Incoming: $(7, -2)$

Scale exactly one equation in $2x - 2y = 11$ and $4x - 7y = 16$ to create cancellation, then solve. Give the answer exactly and check it.

Your response: _____

Incoming: $(-2, 0)$

Choose a nonzero multiplier for one row of $x + 3y = -2$ and $5x + 9y = 2$ and solve by elimination. Check the ordered pair in both originals.

Your response: _____

Incoming: $(4, 2)$

Solve $3x + y = -10$ and $9x - 2y = -10$ by elimination; only one original equation needs to be multiplied. Check the ordered pair in both originals.

Your response: _____

Incoming: $(1, -7)$

Solve the system $3x + y = -5$ and $-3x + 3y = 9$ by choosing addition or subtraction so a variable cancels immediately. Verify the result in both original equations.

Your response: _____

Incoming: $(-2, -4)$

Use direct elimination to solve the system $4x + 2y = -24$ and $7x + 2y = -30$. Verify the result in both original equations.

Your response: _____

Algebra 1

Solving Systems by Elimination

Name: _____ **Date:** _____ **Class:** _____

Evaluate the supplied statement or method. Say whether it is correct, repair it if it is not, and verify the result exactly. Not every prompt contains an error.

For the system $5x - 3y = -28$ and $9x + 3y = -42$, explain whether addition or subtraction creates the cancellation, then solve. Verify the result in both original equations. First choose either adding the two equations or subtracting one from the other to cancel a variable immediately, without scaling. Explain your choice using the displayed coefficients, carry out the chosen operation, solve, and verify both original equations. You need not carry out the other operation.

Carry out the indicated elimination and interpret the constant statement without discarding the original constraint for $-5x + y = -1$ and $-10x + 2y = -2$ by forming $-2E1 + E2$. After carrying out the required combination, compare these two claims about the resulting constant statement: A says that it alone completely describes the solution set in the coordinate plane; B says that the solution set must satisfy both the collapsed statement and the retained original equation. Decide which reasoning is valid, explain the difference, and give the complete solution set. If the collapsed statement is false, explain why both descriptions produce an empty set.

Solving Systems by Elimination

Full Worked Solutions - excerpt

Worked example

Problem. Use direct elimination to solve the system $2x - y = 0$ and $2x = 0$. Verify the result in both original equations.

Answer. $(0, 0)$

Explanation and check.

Subtract the second equation from the first; this gives $-y = 0$. Solving that one-variable equation gives $y = 0$. Substitution into $2x - y = 0$ gives the remaining coordinate, so the solution is $(0, 0)$. Both original equations are true at that pair.

Worked example

Problem. Find efficient multipliers for both equations and solve by elimination for $2x - y = -4$ and $3x - 4y = -6$.

Answer. $(-2, 0)$

Explanation and check.

Form $3E1 - 2E2$; this gives $5y = 0$. Solving that one-variable equation gives $y = 0$. Substitution into $2x - y = -4$ gives the remaining coordinate, so the solution is $(-2, 0)$. Both original equations are true at that pair.

Sets & Steps
Math Practice & Worked Solutions

Algebra 1

Choosing a Method for Linear Systems

Choosing a Method for Linear Systems | A1-U06-P05

96 problems · Four activity formats

Topic focus

Across 96 tasks this topic asks for route verdict and complete corrected solution set, method, decisive feature, and first step, casewise route decision and validity reason, more efficient route and structural reason, linked entries and reversibility justification and exact witness and information-loss explanation.

8 PDFs and a README; 64 buyer pages.

The following pages use the same questions, given data, and notation as the final files. Question/card serial numbers and internal IDs are omitted in this preview only. Table values and matching responses are retained. Full answer keys are not included.

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Algebra 1

Choosing a Method for Linear Systems

Name: _____ **Date:** _____ **Class:** _____

Answer each question and record the matching bank letter. Give exact values. Give the whole requested response, including any reasoning the question asks for.

For the system $y = -2x - 7$ and $2x + 2y = -8$, choose substitution or elimination as the more economical exact route. Name the structural feature and the first step; do not carry out the full solve. For the response cell, record the method and its first action; for an algebraic action show the equation before simplifying, and use $E1$ minus $E2$ if subtracting. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it. Bank label: _____	For the system $y = -x + 4$ and $3x + 2y = 8$, choose substitution or elimination as the more economical exact route. Name the structural feature and the first step; do not carry out the full solve. For the response cell, record the method and its first action; for an algebraic action show the equation before simplifying, and use $E1$ minus $E2$ if subtracting. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it. Bank label: _____
Start with $E1$: $2x - 2y = -8$ and $E2$: $-3x + 2y = 11$. Complete this proposed equivalent transformation: retain $E1$ and replace $E2$ by $-2E1 + E2 = -7x + 6y = ?$. Determine every linked entry or prove incompatibility, and explain why retaining $E1$ matters. For the response cell, record all requested missing entries, or the incompatibility conclusion. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it. Bank label: _____	For the system $y = 3x - 17$ and $4x - 3y = 36$, choose substitution or elimination as the more economical exact route. Name the structural feature and the first step; do not carry out the full solve. For the response cell, record the method and its first action; for an algebraic action show the equation before simplifying, and use $E1$ minus $E2$ if subtracting. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it. Bank label: _____

Algebra 1

Choosing a Method for Linear Systems

Name: _____ **Date:** _____ **Class:** _____

Answer each question and show your reasoning in the workspace. Give exact values rather than decimals unless the question supplies a decimal. Give the whole requested response, including any reasoning the question asks for.

For the original system $2x - 2y = -14$ and $-x + 2y = 11$, a student proposes to discard both originals and keep only their sum, $x = -3$. Disprove equivalence with an exact point and state whether the transformation enlarges or excludes part of the solution set.	The original system is $E1$: $3x + 2y = -10$ and $E2$: $2x + 3y = -15$. A new system is formed by the reversible operation: replace $E1$ with $-3E1$ while retaining $E2$. Prove that the complete solution sets are equal in both directions; explicitly use the retained information or inverse operation.
Two valid routes are proposed for $2x - y = -9$ and $2x + y = -15$. Route A isolates x from $2x - y = -9$, introducing division by 2, and substitutes. Route B subtracts the equations immediately, canceling $2x$. The requested answer is exact. Which route is more efficient, and why? Judge the algebraic cost and exactness rather than the number of written lines alone.	For the original system $3x - y = 8$ and $2x + 3y = -24$, a student proposes to discard both originals and keep only their sum, $5x + 2y = -16$. Disprove equivalence with an exact point and state whether the transformation enlarges or excludes part of the solution set.
Two valid routes are proposed for $3x + y = -7$ and $3x + 4y = -1$. Route A isolates x from $3x + y = -7$, introducing division by 3, and substitutes. Route B subtracts the equations immediately, canceling $3x$. The requested answer is exact. Which route is more efficient, and why? Judge the algebraic cost and exactness rather than the number of written lines alone.	Two valid routes are proposed for $4x + 3y = 21$ and $4x + 4y = 28$. Route A isolates x from $4x + 3y = 21$, introducing division by 4, and substitutes. Route B subtracts the equations immediately, canceling $4x$. The requested answer is exact. Which route is more efficient, and why? Judge the algebraic cost and exactness rather than the number of written lines alone.

Algebra 1

Choosing a Method for Linear Systems

Name: _____ **Date:** _____ **Class:** _____

Begin at START. Answer the card, then find the matching final answer at the top of another card. Use the recording sheet for your reasoning. Visit each card once and continue to FINISH.

Incoming: elimination: $(4x + 3y) - (4x + 4y) = (36) - (40)$

For $5x$-$y = -22$ and $-5x + y = 22$, choose substitution or elimination as the more economical exact route. Cite the decisive coefficient relation and state the first operation without finishing the solve. For the response cell, record the method and its first action; for an algebraic action show the equation before simplifying, and use $E1$ minus $E2$ if subtracting. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it.

Your response: _____

Incoming: elimination: $(4x + y) - (4x + 3y) = (19) - (33)$

For $5x - 3y = 45$ and $-5x = -30$, choose substitution or elimination as the more economical exact route. Cite the decisive coefficient relation and state the first operation without finishing the solve. For the response cell, record the method and its first action; for an algebraic action show the equation before simplifying, and use $E1$ minus $E2$ if subtracting. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it.

Your response: _____

Incoming: k = 2, y-coefficient 0, constant -66.

Start with $E1$: $2x + 2y = -8$ and $E2$: $3x + 3y = -12$. Complete this proposed equivalent transformation: retain $E1$ and complete kE1 + $E2$ so its x-coefficient is 1; report k, the y-coefficient, and the constant. Determine every linked entry or prove incompatibility, and explain why retaining $E1$ matters. For the response cell, record all requested missing entries, or the incompatibility conclusion. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it.

Your response: _____

Incoming: k = 3, y-coefficient 5, constant -26.

Start with $E1$: $3x + 3y = 12$ and $E2$: $3x + 3y = 12$. Complete this proposed equivalent transformation: retain $E1$ and complete kE1 + $E2$ so its x-coefficient is 6; report k, the y-coefficient, and the constant. Determine every linked entry or prove incompatibility, and explain why retaining $E1$ matters. For the response cell, record all requested missing entries, or the incompatibility conclusion. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it.

Your response: _____

Incoming: The missing constant is -15.

For $4x - 2y = -26$ and $4x + y = -23$, choose substitution or elimination as the more economical exact route. Cite the decisive coefficient relation and state the first operation without finishing the solve. For the response cell, record the method and its first action; for an algebraic action show the equation before simplifying, and use $E1$ minus $E2$ if subtracting. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it.

Your response: _____

Incoming: elimination: $(4x - 2y) - (4x + y) = (-26) - (-23)$

For $2x - 3y = 18$ and $2x$-$y = 6$, choose substitution or elimination as the more economical exact route. Cite the decisive coefficient relation and state the first operation without finishing the solve. For the response cell, record the method and its first action; for an algebraic action show the equation before simplifying, and use $E1$ minus $E2$ if subtracting. Complete and justify every part of the original task; do not carry out a full solve when the original task forbids it.

Your response: _____

Algebra 1

Choosing a Method for Linear Systems

Name: _____ **Date:** _____ **Class:** _____

Evaluate the supplied statement or method. Say whether it is correct, repair it if it is not, and verify the result exactly. Not every prompt contains an error.

Two valid routes are proposed for $2x - 2y = 6$ and $2x - y = 0$. Route A isolates x from $2x - 2y = 6$, introducing division by 2, and substitutes. Route B subtracts the equations immediately, canceling $2x$. The requested answer is exact. Which route is more efficient, and why? Judge the algebraic cost and exactness rather than the number of written lines alone.

Two valid routes are proposed for $3x + 2y = -2$ and $3x + 4y = -4$. Route A isolates x from $3x + 2y = -2$, introducing division by 3, and substitutes. Route B subtracts the equations immediately, canceling $3x$. The requested answer is exact. Which route is more efficient, and why? Judge the algebraic cost and exactness rather than the number of written lines alone.

Audit this claim for $2x - 2y = 0$ and $-x + 2y = -3$: The student changes only the constant in $E1$ by 1, continues, and reports $(-3, -3)$. Check the final set against both originals and separately judge whether every transformation is set-preserving. Repair the argument.

Two valid routes are proposed for $4x + 2y = 20$ and $4x + 5y = 32$. Route A isolates x from $4x + 2y = 20$, introducing division by 4, and substitutes. Route B subtracts the equations immediately, canceling $4x$. The requested answer is exact. Which route is more efficient, and why? Judge the algebraic cost and exactness rather than the number of written lines alone.

Choosing a Method for Linear Systems

Full Worked Solutions - excerpt

Worked example

Problem. Two valid routes are proposed for $2x - 2y = 6$ and $2x - y = 0$. Route A isolates x from $2x - 2y = 6$, introducing division by 2, and substitutes. Route B subtracts the equations immediately, canceling $2x$. The requested answer is exact. Which route is more efficient, and why? Judge the algebraic cost and exactness rather than the number of written lines alone.

Answer. Route B is more efficient because it avoids early fractions and uses the ready equal x-coefficients.

Explanation and check.

For $2x - 2y = 6$ and $2x - y = 0$, both routes preserve the system, but Route B is preferable because it avoids early fractions and uses the ready equal x-coefficients. Direct checking confirms that both valid routes lead to $(-3, -6)$.

Worked example

Problem. Two valid routes are proposed for $2x - y = -9$ and $2x + y = -15$. Route A isolates x from $2x - y = -9$, introducing division by 2, and substitutes. Route B subtracts the equations immediately, canceling $2x$. The requested answer is exact. Which route is more efficient, and why? Judge the algebraic cost and exactness rather than the number of written lines alone.

Answer. Route B is more efficient because it avoids early fractions and uses the ready equal x-coefficients.

Explanation and check.

For $2x - y = -9$ and $2x + y = -15$, both routes preserve the system, but Route B is preferable because it avoids early fractions and uses the ready equal x-coefficients. Direct checking confirms that both valid routes lead to $(-6, -3)$.