



Solving Linear Equations

Solve the following equations. Some questions will have negative, fraction or decimal answers.

Section A

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|-------------------|-------------------|--------------------|--------------------|
| 1) $4x + 10 = 30$ | 4) $9 + 4x = -15$ | 7) $5 + 10x = -15$ | 11) $25 = 46 - 3x$ |
| 2) $4x - 8 = 20$ | 5) $14 + 6x = 2$ | 8) $10 = 7 - x$ | 12) $8 = 9 - 5x$ |
| 3) $5 + 2x = 65$ | 6) $2x - 3 = -2$ | 9) $-3 = 16 - x$ | |
| | | 10) $-4 = 12 - 2x$ | |

Section B

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|----------------------------|---------------------------|----------------------------|--------------------------|
| 1) $\frac{x}{2} + 11 = 19$ | 4) $3 = \frac{x}{4} - 3$ | 7) $-1 = 6 + \frac{x}{2}$ | 10) $\frac{x+5}{3} = 12$ |
| 2) $\frac{x}{7} - 6 = 1$ | 5) $7 = \frac{x}{2} - 4$ | 8) $14 - \frac{x}{3} = 10$ | 11) $\frac{x-4}{11} = 9$ |
| 3) $12 + \frac{x}{5} = 20$ | 6) $-2 = \frac{x}{8} - 5$ | 9) $5 - \frac{x}{9} = -1$ | 12) $\frac{x+3}{8} = -2$ |

Section C

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|----------------------|------------------------|---------------------------|
| 1) $3(x + 2) = 15$ | 5) $5(4x - 3) = 11$ | 9) $2(3x - 1) + 3 = 21$ |
| 2) $2(x + 5) = 24$ | 6) $-3(2x + 1) = 21$ | 10) $2(x + 1) + 3x = 37$ |
| 3) $6(x - 9) = 12$ | 7) $-9(x - 4) = 54$ | 11) $12 + 4(2x + 4) = 68$ |
| 4) $2(3x + 5) = -44$ | 8) $7(x - 4) - 3 = 46$ | 12) $3x - 2(6x - 3) = 42$ |

Section D

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|-------------------|-------------------|-----------------------|
| 1) $x + 8 = 3x$ | 5) $4x + 7 = 6x$ | 9) $2 - 4x = 6x$ |
| 2) $6 + x = 2x$ | 6) $9x + 13 = 7x$ | 10) $4(x + 3) = 7x$ |
| 3) $10 + x = 6x$ | 7) $12x - 5 = 7x$ | 11) $5(2x - 1) = 16x$ |
| 4) $3x - 24 = 5x$ | 8) $5 - 2x = 8x$ | 12) $3(6x + 4) = 2x$ |

Section E

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|-----------------------|-----------------------|--------------------------|
| 1) $9x + 2 = 4x + 12$ | 5) $7 + x = 13 + 4x$ | 9) $4x - 21 = 6x - 3$ |
| 2) $5x + 4 = 31 + 2x$ | 6) $5x - 3 = 2x + 6$ | 10) $x - 3 = 1 + 7x$ |
| 3) $12 + 3x = 8x + 3$ | 7) $5x - 6 = 18 - 3x$ | 11) $9x - 5 = 7 - 4x$ |
| 4) $20 + 2x = 6 + 9x$ | 8) $8 - 2x = 4 - 6x$ | 12) $-8x + 4 = -26x + 1$ |