

Solving Linear Equations (C)

ANSWERS



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

Section A

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|-------------------|-----------|--------------------|---------------------------------|--------------------|---------------------------------|
| 1) $4x + 10 = 30$ | 5 | 5) $14 + 6x = 2$ | -2 | 9) $-3 = 16 - x$ | 19 |
| 2) $4x - 8 = 20$ | 7 | 6) $2x - 3 = -2$ | $\frac{1}{2}$ | 10) $-4 = 12 - 2x$ | 8 |
| 3) $5 + 2x = 65$ | 30 | 7) $5 + 10x = -15$ | -2 | 11) $25 = 46 - 3x$ | 7 |
| 4) $9 + 4x = -15$ | -6 | 8) $10 = 7 - x$ | -3 | 12) $8 = 9 - 5x$ | $\frac{1}{5}$ |

Section B

- | | | | | | |
|----------------------------|-----------|----------------------------|------------|---------------------------|------------|
| 1) $\frac{x}{2} + 11 = 19$ | 16 | 5) $7 = \frac{x}{2} - 4$ | 22 | 9) $5 - \frac{x}{9} = -1$ | 54 |
| 2) $\frac{x}{7} - 6 = 1$ | 49 | 6) $-2 = \frac{x}{8} - 5$ | 24 | 10) $\frac{x+5}{3} = 12$ | 31 |
| 3) $12 + \frac{x}{5} = 20$ | 40 | 7) $-1 = 6 + \frac{x}{2}$ | -14 | 11) $\frac{x-4}{11} = 9$ | 103 |
| 4) $3 = \frac{x}{4} - 3$ | 24 | 8) $14 - \frac{x}{3} = 10$ | 12 | 12) $\frac{x+3}{8} = -2$ | -19 |

Section C

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|----------------------|-----------|------------------------|------------|---------------------------|----------------------------------|
| 1) $3(x + 2) = 15$ | 3 | 5) $5(4x - 3) = 11$ | 1.3 | 9) $2(3x - 1) + 3 = 21$ | $\frac{10}{3}$ |
| 2) $2(x + 5) = 24$ | 7 | 6) $-3(2x + 1) = 21$ | -4 | 10) $2(x + 1) + 3x = 37$ | 7 |
| 3) $6(x - 9) = 12$ | 11 | 7) $-9(x - 4) = 54$ | -2 | 11) $12 + 4(2x + 4) = 68$ | 5 |
| 4) $2(3x + 5) = -44$ | -9 | 8) $7(x - 4) - 3 = 46$ | 11 | 12) $3x - 2(6x - 3) = 42$ | -4 |



Section D

1) $x + 8 = 3x$ **4**

5) $4x + 7 = 6x$ **3.5**

9) $2 - 4x = 6x$ **$\frac{1}{5}$**

2) $6 + x = 2x$ **6**

6) $9x + 13 = 7x$ **-6.5**

10) $4(x + 3) = 7x$ **4**

3) $10 + x = 6x$ **2**

7) $12x - 5 = 71$ **1**

11) $5(2x - 1) = 16x$ **$-\frac{5}{6}$**

4) $3x - 24 = 5x$ **-12**

8) $5 - 2x = 8x$ **0.5**

12) $3(6x + 4) = 2x$ **$-\frac{3}{4}$**

Section E

1) $9x + 2 = 4x + 12$ **2**

7) $5x - 6 = 18 - 3x$ **3**

2) $5x + 4 = 31 + 2x$ **9**

8) $8 - 2x = 4 - 6x$ **-1**

3) $12 + 3x = 8x + 3$ **$\frac{9}{5}$**

9) $4x - 21 = 6x - 3$ **-9**

4) $20 + 2x = 6 + 9x$ **2**

10) $x - 3 = 1 + 7x$ **$-\frac{2}{3}$**

5) $7 + x = 13 + 4x$ **-2**

11) $9x - 5 = 7 - 4x$ **$\frac{12}{13}$**

6) $5x - 3 = 2x + 6$ **3**

12) $-8x + 4 = -26x + 1$ **$-\frac{1}{6}$**