

Intermediate Algebra Skill

Solving Linear Equations Involving Nested Symbols of Grouping:

Solve the following linear equations.

$$1) 4(5+2(x-1))=6x+6$$

$$2) 5+2(x-3)=2[5-4(x+2)]$$

$$3) 3[2-4(x-1)]=3-4(x+2)$$

$$4) 2\{9-3[-2x-4]\}=12x+42$$

$$5) 3\{7-2[7x-4]\}=-40x+45$$

$$6) 11+4[5x-(2x-1)]=12(x+1)$$

$$7) 3[2x-(5+4x)]=5-7x$$

$$8) 5[3x-(2+4x)]=9-4x$$

$$9) 4[3-2(x+4)]-(x+3)=13$$

$$10) x-\left\{3x-\left[2x-\left(5x-(7x-1)\right)\right]\right\}=x+7$$

$$11) 3x-\left\{5x-\left[7x-\left(4x-(3x+1)\right)\right]\right\}=3x+5$$

$$12) 17-3\{5+2[x-2]\}+4\{x-3(x+7)\}=9\left\{x+3\left[2+3(4-x)\right]\right\}$$

$$13) 23-2\{4+3[x-1]\}+5\{x-2(x+3)\}=7\left\{x-2\left[5-(2x+3)\right]\right\}$$

Answers to Solving Linear Equations Involving Nested Symbols of Grouping:

1) -3

2) $-\frac{1}{2}$

3) $-\frac{23}{8}$

4) $\mathbb{R}$

5) 0

6) $\emptyset$

7) 20

8) -19

9) -4

10) 8

11) 4

12) $\frac{224}{29}$

13) $\frac{19}{46}$