

## Intermediate Algebra Skill

### Solving Linear Equations Involving Nested Symbols of Grouping:

Solve the following linear equations.

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

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

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

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

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

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

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

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

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

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

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

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

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

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