# Algebra I Lesson #4 Unit 2 Class Worksheet #4 For Worksheets 8 & 9

1. 
$$5x + 3x + 1 = 17$$

1. 5x + 3x + 1 = 17

## **The SID Method**

1. 5x + 3x + 1 = 17

## **The SID Method**

1. 5x + 3x + 1 = 17

## **The SID Method**

1. 
$$5x + 3x + 1 = 17$$

**8**x

## **The SID Method**

1. 
$$5x + 3x + 1 = 17$$

**8x** + **1** 

## **The SID Method**

1. 
$$5x + 3x + 1 = 17$$

8x + 1 =

## **The SID Method**

1. 
$$5x + 3x + 1 = 17$$

8x + 1 = 17

## **The SID Method**

1. 
$$5x + 3x + 1 = 17$$

8x + 1 = 17

## **The SID Method**

1. 
$$5x + 3x + 1 = 17$$

8x + 1 = 17



1. 
$$5x + 3x + 1 = 17$$
  
 $8x + 1 = 17$   
Subtract 1  
from  
each side.



1.
 
$$5x + 3x + 1 = 17$$
 Subtract 1

  $8x + 1 = 17$ 
 from

  $8x =$ 
 each side.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

1.
$$5x + 3x + 1 = 17$$
Subtract 1 $8x + 1 = 17$ from $8x = 16$ each side.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

1. 
$$5x + 3x + 1 = 17$$
  
 $8x + 1 = 17$   
 $8x = 16$ 



**S** stands for **Simplify** the expression on each side.

1. 
$$5x + 3x + 1 = 17$$
  
 $8x + 1 = 17$   
 $8x = 16$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

1.
$$5x + 3x + 1 = 17$$
Divide $8x + 1 = 17$ both sides $8x = 16$ by 8

# **The SID Method**Sstands forSimplifythe expression on each side.

**I** stands for **Isolate** the variable.

1. 
$$5x + 3x + 1 = 17$$
  
 $8x + 1 = 17$   
 $8x = 16$   
 $x =$ 
Divide  
both sides  
by 8

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

1. 
$$5x + 3x + 1 = 17$$
  
 $8x + 1 = 17$   
 $8x = 16$   
 $x = 2$   
Divide  
both sides  
by 8

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

1. 
$$5x + 3x + 1 = 17$$
  
 $8x + 1 = 17$   
 $8x = 16$   
 $x = 2$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

2. 
$$9x - 3x + 3 = 27$$

## **The SID Method**

2. 
$$9x - 3x + 3 = 27$$

# **The SID Method**

2. 
$$9x - 3x + 3 = 27$$

## **The SID Method**

2. 
$$9x - 3x + 3 = 27$$

**6x** 

## **The SID Method**

2. 
$$9x - 3x + 3 = 27$$

6x + 3 =

## **The SID Method**

2. 
$$9x - 3x + 3 = 27$$

6x + 3 = 27

## **The SID Method**

2. 
$$9x - 3x + 3 = 27$$

6x + 3 = 27

# **The SID Method**

2. 
$$9x - 3x + 3 = 27$$

6x + 3 = 27



2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
Subtract 3  
from  
each side.



2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
 $6x =$   
Subtract 3  
from  
each side.

# **The SID Method**

**S** stands for **Simplify** the expression on each side.

2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
 $6x = 24$   
Subtract 3  
from  
each side.

# **The SID Method**

**S** stands for **Simplify** the expression on each side.

2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
 $6x = 24$ 



2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
 $6x = 24$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
 $6x = 24$ 
Divide  
both sides  
by 6

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
 $6x = 24$   
 $x =$ 
Divide  
both sides  
by 6

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
 $6x = 24$   
 $x = 4$   
Divide  
both sides  
by 6

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.
2. 
$$9x - 3x + 3 = 27$$
  
 $6x + 3 = 27$   
 $6x = 24$   
 $x = 4$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

3. 
$$2x + 4x - 3 = 27$$

## **The SID Method**

3. 
$$2x + 4x - 3 = 27$$

## **The SID Method**

#### 3. 2x + 4x - 3 = 27

## **The SID Method**

3. 
$$2x + 4x - 3 = 27$$

**6x** 

## **The SID Method**

3. 
$$2x + 4x - 3 = 27$$

6x-3

## **The SID Method**

3. 
$$2x + 4x - 3 = 27$$

6x - 3 =

## **The SID Method**

3. 
$$2x + 4x - 3 = 27$$

6x - 3 = 27

## **The SID Method**

3. 
$$2x + 4x - 3 = 27$$

6x - 3 = 27

# **The SID Method**

3. 
$$2x + 4x - 3 = 27$$

6x - 3 = 27



3. 
$$2x + 4x - 3 = 27$$
  
 $6x - 3 = 27$   
to  
each side.



3. 
$$2x + 4x - 3 = 27$$
  
 $6x - 3 = 27$   
 $6x =$   
Add 3  
to  
each side.

# **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

3. 
$$2x + 4x - 3 = 27$$
Add 3 $6x - 3 = 27$ to $6x = 30$ each side.

# The SID MethodSstands forSimplifyIstands forIsolateIthe variable.

3. 
$$2x + 4x - 3 = 27$$
  
 $6x - 3 = 27$   
 $6x = 30$ 



3. 
$$2x + 4x - 3 = 27$$
  
 $6x - 3 = 27$   
 $6x = 30$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

3.
$$2x + 4x - 3 = 27$$
Divide $6x - 3 = 27$ both sides $6x = 30$ by 6



3. 
$$2x + 4x - 3 = 27$$
  
 $6x - 3 = 27$   
 $6x = 30$   
 $x =$ 
Divide  
both sides  
by 6

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

3. 
$$2x + 4x - 3 = 27$$
  
 $6x - 3 = 27$   
 $6x = 30$   
 $x = 5$   
Divide  
both sides  
by 6

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

3. 
$$2x + 4x - 3 = 27$$
  
 $6x - 3 = 27$   
 $6x = 30$   
 $x = 5$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

4. 
$$x + 3x - 7 = 17$$

## **The SID Method**

4. 
$$x + 3x - 7 = 17$$

## **The SID Method**

4. 
$$x + 3x - 7 = 17$$

## **The SID Method**

$$4. \qquad \mathbf{x} + 3\mathbf{x} - 7 = 17$$
$$4\mathbf{x}$$

**The SID Method** 

4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7$ 

## **The SID Method**

4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 =$ 

# **The SID Method**

4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$ 

## **The SID Method**

4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$ 

## **The SID Method**

4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$ 



4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$   
to  
each side.



**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.



4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$   
 $4x = 24$   
Add 7  
to  
each side.



4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$   
 $4x = 24$ 



4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$   
 $4x = 24$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$   
 $4x = 24$ 
Divide  
both sides  
by 4



4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$   
 $4x = 24$   
 $x =$ 
Divide  
both sides  
by 4

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$   
 $4x = 24$   
 $x = 6$   
Divide  
both sides  
by 4

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.
4. 
$$x + 3x - 7 = 17$$
  
 $4x - 7 = 17$   
 $4x = 24$   
 $x = 6$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

5. 3x + 5 + 4x = 19

## **The SID Method**

5. 
$$3x + 5 + 4x = 19$$

## **The SID Method**

5. 
$$3x + 5 + 4x = 19$$

## **The SID Method**

5. 
$$3x + 5 + 4x = 19$$
$$7x$$

## **The SID Method**

5. 
$$3x + 5 + 4x = 19$$
$$7x + 5$$

## **The SID Method**

5. 
$$3x + 5 + 4x = 19$$
$$7x + 5 =$$

## **The SID Method**

5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$ 

## **The SID Method**

5. 
$$3x + 5 + 4x = 19$$

7x + 5 = 19

## **The SID Method**

5. 
$$3x + 5 + 4x = 19$$

7x + 5 = 19



5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
Subtract 5  
from  
both sides.



5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
 $7x = 5$   
Subtract 5  
from  
both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
 $7x = 14$   
Subtract 5  
from  
both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
 $7x = 14$ 

### **The SID Method**

**S** stands for **Simplify** the expression on each side.

5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
 $7x = 14$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
 $7x = 14$ 
Divide  
both sides  
by 7

# The SID Method

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
 $7x = 14$   
 $x =$ 
Divide  
both sides  
by 7

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
 $7x = 14$   
 $x = 2$   
Divide  
both sides  
by 7

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

5. 
$$3x + 5 + 4x = 19$$
  
 $7x + 5 = 19$   
 $7x = 14$   
 $x = 2$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

6. 2x + 1 + x = 19

## **The SID Method**

#### 6. 2x + 1 + x = 19

## **The SID Method**

6. 
$$2x + 1 + x = 19$$

## **The SID Method**

$$6. \qquad 2x + 1 + x = 19$$
$$3x$$

## **The SID Method**

6. 
$$2x + 1 + x = 19$$
  
 $3x + 1$ 

## **The SID Method**

6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 =$ 

## **The SID Method**

6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$ 

## **The SID Method**

6. 
$$2x + 1 + x = 19$$

3x + 1 = 19

## **The SID Method**

6. 
$$2x + 1 + x = 19$$

3x + 1 = 19



6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
Subtract 1  
from  
both sides



6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
 $3x =$ 
Subtract 1  
from  
both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
 $3x = 18$ 
Subtract 1  
from  
both sides.

# The SID MethodSstands for SimplifyIstands for IsolateIthe variable.

6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
 $3x = 18$ 



6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
 $3x = 18$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
 $3x = 18$ 
Divide  
both sides  
by 3

## The SID Method

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
 $3x = 18$   
 $x =$ 
Divide  
both sides  
by 3

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
 $3x = 18$   
 $x = 6$   
Divide  
both sides  
by 3

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.
6. 
$$2x + 1 + x = 19$$
  
 $3x + 1 = 19$   
 $3x = 18$   
 $x = 6$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

7. 
$$6x + 2 - 3x = 26$$

## **The SID Method**

7. 
$$6x + 2 - 3x = 26$$

# **The SID Method**

7. 
$$6x + 2 - 3x = 26$$

# **The SID Method**

7. 
$$6x + 2 - 3x = 26$$
$$3x$$

## **The SID Method**

7. 
$$6x + 2 - 3x = 26$$
$$3x + 2$$

# **The SID Method**

7. 
$$6x + 2 - 3x = 26$$
$$3x + 2 =$$

# **The SID Method**

7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$ 

# **The SID Method**

7. 
$$6x + 2 - 3x = 26$$

3x+2=26

# **The SID Method**

7. 
$$6x + 2 - 3x = 26$$

3x+2=26



7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
Subtract 2  
from  
both sides.



7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
 $3x =$ 
Subtract 2  
from  
both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
 $3x = 24$ 
Subtract 2  
from  
both sides.

# The SID MethodSstands forSimplifyIstands forIsolateIthe variable.

7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
 $3x = 24$ 



7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
 $3x = 24$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
 $3x = 24$ 
Divide  
both sides  
by 3

# **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
 $3x = 24$   
 $x =$ 
Divide  
both sides  
by 3

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
 $3x = 24$   
 $x = 8$   
Divide  
both sides  
by 3

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

7. 
$$6x + 2 - 3x = 26$$
  
 $3x + 2 = 26$   
 $3x = 24$   
 $x = 8$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

8. 
$$7x + 10 - 2x = 35$$

## **The SID Method**

8. 
$$7x + 10 - 2x = 35$$

## **The SID Method**

8. 
$$7x + 10 - 2x = 35$$

## **The SID Method**

8. 
$$7x + 10 - 2x = 35$$
  
 $5x$ 

## **The SID Method**

8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10$ 

**The SID Method** 

8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 =$ 

# **The SID Method**

8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$ 

**The SID Method** 

8. 
$$7x + 10 - 2x = 35$$

5x + 10 = 35

## **The SID Method**

8. 
$$7x + 10 - 2x = 35$$

5x + 10 = 35



8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$   
both sides.



8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$   
 $5x =$ 
Subtract 10  
from  
both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$   
 $5x = 25$   
Subtract 10  
from  
both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$   
 $5x = 25$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$   
 $5x = 25$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$   
 $5x = 25$ 
Divide  
both sides  
by 5

# **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.



## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$   
 $5x = 25$   
 $x = 5$   
Divide  
both sides  
by 5

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.
8. 
$$7x + 10 - 2x = 35$$
  
 $5x + 10 = 35$   
 $5x = 25$   
 $x = 5$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

9. 
$$3x - 4 + 4x = 24$$

## **The SID Method**

9. 
$$3x - 4 + 4x = 24$$

## **The SID Method**

9. 
$$3x - 4 + 4x = 24$$

## **The SID Method**

9. 
$$3x - 4 + 4x = 24$$
$$7x$$

## **The SID Method**

9. 
$$3x - 4 + 4x = 24$$
$$7x - 4$$

# The SID MethodSstands for SimplifySthe expression on each side.

9. 
$$3x - 4 + 4x = 24$$
$$7x - 4 =$$

## The SID Method S stands for Simplify the expression on each side.

9. 
$$3x - 4 + 4x = 24$$
$$7x - 4 = 24$$

## **The SID Method**

9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$ 

## The SID Method

9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$ 



9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$   
both sides.



# The SID MethodSstands for SimplifySthe expression on each side.

**I** stands for **Isolate** the variable.

9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$   
 $7x = 28$   
Add 4  
to  
both sides.

# The SID MethodSstands forSimplifyIstands forIsolateIthe variable.

9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$   
 $7x = 28$ 



9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$   
 $7x = 28$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$   
 $7x = 28$ 
Divide  
both sides  
by 7

# The SID MethodSstands forSimplifyIstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$   
 $7x = 28$   
 $x =$ 
Divide  
both sides  
by 7

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$   
 $7x = 28$   
 $x = 4$   
Divide  
both sides  
by 7

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

9. 
$$3x - 4 + 4x = 24$$
  
 $7x - 4 = 24$   
 $7x = 28$   
 $x = 4$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

#### 10. 8x - 3 + 2x = 47

## **The SID Method**

#### 10. 8x - 3 + 2x = 47

## **The SID Method**

10. 
$$8x - 3 + 2x = 47$$

## **The SID Method**

10. 
$$8x - 3 + 2x = 47$$
  
10x

## **The SID Method**

10. 
$$8x - 3 + 2x = 47$$
  
10x - 3

## **The SID Method**

10. 
$$8x - 3 + 2x = 47$$
  
10x - 3 =

## **The SID Method**

10. 
$$8x - 3 + 2x = 47$$
  
 $10x - 3 = 47$ 

## **The SID Method**

10. 
$$8x - 3 + 2x = 47$$
  
 $10x - 3 = 47$ 



10. 
$$8x - 3 + 2x = 47$$

10x - 3 = 47



10. 
$$8x - 3 + 2x = 47$$
  
 $10x - 3 = 47$   
both sides.



10.
$$8x - 3 + 2x = 47$$
Add 3 $10x - 3 = 47$ to $10x =$ both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

10.
$$8x - 3 + 2x = 47$$
Add 3 $10x - 3 = 47$ to $10x = 50$ both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

10. 
$$8x - 3 + 2x = 47$$
  
 $10x - 3 = 47$   
 $10x = 50$ 



10. 
$$8x - 3 + 2x = 47$$
  
 $10x - 3 = 47$   
 $10x = 50$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

10.
$$8x - 3 + 2x = 47$$
Divide $10x - 3 = 47$ both sides $10x = 50$ by 10

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

10.
 
$$8x - 3 + 2x = 47$$
 Divide

  $10x - 3 = 47$ 
 both sides

  $10x = 50$ 
 by 10

  $x =$ 
 $x = 1000$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

10.
 
$$8x - 3 + 2x = 47$$
 Divide

  $10x - 3 = 47$ 
 both sides

  $10x = 50$ 
 by 10

  $x = 5$ 
 by 10

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.
10. 
$$8x - 3 + 2x = 47$$
  
 $10x - 3 = 47$   
 $10x = 50$   
 $x = 5$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

11. 8x - 1 - 4x = 23

## **The SID Method**

11. 8x - 1 - 4x = 23

# **The SID Method**

11. 
$$8x - 1 - 4x = 23$$

## **The SID Method**

11. 
$$8x - 1 - 4x = 23$$

$$4x$$

# **The SID Method**

11. 
$$8x - 1 - 4x = 23$$
  
 $4x - 1$ 

# **The SID Method**

11. 
$$8x - 1 - 4x = 23$$
  
 $4x - 1 =$ 

# **The SID Method**

11. 
$$8x - 1 - 4x = 23$$
  
 $4x - 1 = 23$ 

# **The SID Method**

11. 
$$8x - 1 - 4x = 23$$

4x - 1 = 23

# **The SID Method**

11. 
$$8x - 1 - 4x = 23$$

4x - 1 = 23



11. 
$$8x - 1 - 4x = 23$$
  
 $4x - 1 = 23$   
both sides.



11.
 
$$8x - 1 - 4x = 23$$
 Add 1

  $4x - 1 = 23$ 
 to

  $4x =$ 
 both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

11.
 
$$8x - 1 - 4x = 23$$
 Add 1

  $4x - 1 = 23$ 
 to

  $4x = 24$ 
 both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

11. 
$$8x - 1 - 4x = 23$$
  
 $4x - 1 = 23$   
 $4x = 24$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

11. 
$$8x - 1 - 4x = 23$$
  
 $4x - 1 = 23$   
 $4x = 24$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

11.
 
$$8x - 1 - 4x = 23$$
 Divide

  $4x - 1 = 23$ 
 both sides

  $4x = 24$ 
 by 4

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.



## **The SID Method**

**S** stands for **Simplify** the expression on each side.

I stands for **Isolate** the variable.



## **The SID Method**

**S** stands for **Simplify** the expression on each side.

I stands for **Isolate** the variable.

11. 
$$8x - 1 - 4x = 23$$
  
 $4x - 1 = 23$   
 $4x = 24$   
 $x = 6$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

#### 12. 6x - 7 - x = 33

## **The SID Method**

#### 12. 6x - 7 - x = 33

## **The SID Method**

12. 
$$6x - 7 - x = 33$$

## **The SID Method**

12. 
$$6x - 7 - x = 33$$
5x

## **The SID Method**

12. 
$$6x - 7 - x = 33$$
$$5x - 7$$

# **The SID Method**

12. 
$$6x - 7 - x = 33$$
  
 $5x - 7 = 33$ 

# **The SID Method**

12. 
$$6x - 7 - x = 33$$
  
 $5x - 7 = 33$ 

## **The SID Method**

12. 
$$6x - 7 - x = 33$$

5x - 7 = 33

## **The SID Method**

12. 
$$6x - 7 - x = 33$$

5x - 7 = 33

# The SID MethodSstands forSimplifyIstands forIsolateIstands forIsolate

12. 
$$6x - 7 - x = 33$$
  
 $5x - 7 = 33$   
Add 7  
to  
both sides.



12.
 
$$6x - 7 - x = 33$$
 Add 7

  $5x - 7 = 33$ 
 to

  $5x =$ 
 both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

12.
 
$$6x - 7 - x = 33$$
 Add 7

  $5x - 7 = 33$ 
 to

  $5x = 40$ 
 both sides.

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

12. 
$$6x - 7 - x = 33$$
  
 $5x - 7 = 33$   
 $5x = 40$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

12. 
$$6x - 7 - x = 33$$
  
 $5x - 7 = 33$   
 $5x = 40$ 

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

12.
 
$$6x - 7 - x = 33$$
 Divide

  $5x - 7 = 33$ 
 both sides

  $5x = 40$ 
 by 5

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.



## **The SID Method**

**S** stands for **Simplify** the expression on each side.

I stands for **Isolate** the variable.

12. 
$$6x - 7 - x = 33$$
  
 $5x - 7 = 33$   
 $5x = 40$   
 $x = 8$   
Divide  
both sides  
by 5

## **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.
12. 
$$6x - 7 - x = 33$$
  
 $5x - 7 = 33$   
 $5x = 40$   
 $x = 8$ 

### **The SID Method**

**S** stands for **Simplify** the expression on each side.

**I** stands for **Isolate** the variable.

**D** stands for **Divide** both sides by the coefficient of x.

#### 13. 3x + 2(x + 5) = 45

### **The SID Method**

#### 13. 3x + 2(x + 5) = 45

### **The SID Method**

13. 
$$3x + 2(x + 5) = 45$$

### **The SID Method**

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x +$ 

13. 
$$3x + 2(x + 5) = 45$$

3x + 2x

## **The SID Method**

13. 
$$3x + 2(x + 5) = 45$$

3x + 2x + 10

### **The SID Method**

13. 
$$3x + 2(x + 5) = 45$$

3x + 2x + 10 =

## **The SID Method**

13. 
$$3x + 2(x + 5) = 45$$

3x + 2x + 10 = 45

13. 
$$3x + 2(x + 5) = 45$$

3x + 2x + 10 = 45

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$ 

## **The SID Method**

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x$ 

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10$ 

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 =$ 

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 = 45$ 

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 = 45$ 

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 = 45$ 



13.
$$3x + 2(x + 5) = 45$$
Subtract 10 $3x + 2x + 10 = 45$ from $5x + 10 = 45$ both sides.

The SID MethodSstands forSimplifyIstands forIsolateIthe variable.

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 = 45$   
 $5x =$ 
Subtract 10  
from  
both sides.



13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 = 45$   
 $5x = 35$   
Subtract 10  
from  
both sides.



13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 = 45$   
 $5x = 35$ 



13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 = 45$   
 $5x = 35$ 

The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

13.
$$3x + 2(x + 5) = 45$$
Divide $3x + 2x + 10 = 45$ both sides $5x + 10 = 45$ by 5 $5x = 35$ 





S stands for Simplify the expression on each side.
I stands for Isolate the variable.
D stands for Divide both sides by the coefficient of x.





S stands for Simplify the expression on each side.
I stands for Isolate the variable.
D stands for Divide both sides by the coefficient of x.

13. 
$$3x + 2(x + 5) = 45$$
  
 $3x + 2x + 10 = 45$   
 $5x + 10 = 45$   
 $5x = 35$   
 $x = 7$ 

The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

14. 
$$2x + 3(x - 2) = 39$$

### **The SID Method**

14. 
$$2x + 3(x - 2) = 39$$

### **The SID Method**

14. 
$$2x + \frac{3(x-2)}{3} = 39$$

### **The SID Method**

14. 
$$2x + 3(x - 2) = 39$$
  
 $2x +$ 

14. 
$$2x + 3(x - 2) = 39$$

 $2\mathbf{x} + 3\mathbf{x}$ 

14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6$ 

14. 
$$2x + 3(x-2) = 39$$

2x + 3x - 6 =

14. 
$$2x + \frac{3(x-2)}{39} = 39$$

2x + 3x - 6 = 39

# The SID MethodS stands for SimplifyS stands for Simplify

14. 
$$2x + 3(x - 2) = 39$$

2x + 3x - 6 = 39

14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$ 

# The SID MethodSstands forSimplifySstands forSimplify
14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x$ 

14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6$ 

14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6 =$ 

14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6 = 39$ 

14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6 = 39$ 

14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6 = 39$ 



14.
$$2x + 3(x - 2) = 39$$
Add 6 $2x + 3x - 6 = 39$ to $5x - 6 = 39$ both sides.





14.
$$2x + 3(x - 2) = 39$$
Add 6 $2x + 3x - 6 = 39$ to $5x - 6 = 39$ both sides. $5x = 45$ 



14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6 = 39$   
 $5x = 45$ 



14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6 = 39$   
 $5x = 45$ 



14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6 = 39$   
 $5x = 45$   
Divide  
both sides  
by 5





I stands for **Isolate** the variable.

**D** stands for **Divide** both sides by the coefficient of x.





14. 
$$2x + 3(x - 2) = 39$$
  
 $2x + 3x - 6 = 39$   
 $5x - 6 = 39$   
 $5x = 45$   
 $x = 9$ 

# The SID MethodSstands forSimplifyIstands forSimplifyIstands forISOlateDstands forDivideboth sides by the coefficient of x.

15. 
$$x + 4(x + 2) = 3(x + 6)$$



15. 
$$x + 4(x + 2) = 3(x + 6)$$



15. 
$$x + \frac{4(x+2)}{3(x+6)} = 3(x+6)$$



15. 
$$x + \frac{4(x+2)}{x+3} = 3(x+6)$$



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 =$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 =$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$

 $\mathbf{x} + 4\mathbf{x} + \mathbf{8} = 3\mathbf{x}$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$

x + 4x + 8 = 3x + 18



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 =$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
both sides.



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x$   
Subtract 3x  
from  
both sides.


15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 =$   
Subtract 3x  
from  
both sides.



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$   
Subtract 3x  
from  
both sides.



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$   
Subtract 8  
from  
both sides.



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$   
 $2x = 18$ 

8



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$   
 $2x = 10$   
Subtract 8  
from  
both sides



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$   
 $2x = 10$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$   
 $2x = 10$ 



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$   
 $2x = 10$   
Divide  
both sides  
by 2





**D** stands for **Divide** both sides by the coefficient of x.



15. 
$$x + 4(x + 2) = 3(x + 6)$$
  
 $x + 4x + 8 = 3x + 18$   
 $5x + 8 = 3x + 18$   
 $2x + 8 = 18$   
 $2x = 10$   
 $x = 5$ 

# The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

16. 4(x+2) + 3(2x+5) = 3x + 5(x+7)



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$

Algebra I Solving Equations The SID Method 16. 4(x+2) + 3(2x+5) = 3x + 5(x+7)

**4x** 

16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$
  
 $4x + 8$ 



Algebra I Solving Equations The SID Method 16. 4(x+2) + 3(2x+5) = 3x + 5(x+7)4x + 8



16. 
$$4(x+2) + \frac{3(2x+5)}{3(2x+5)} = 3x + 5(x+7)$$

 $4\mathbf{x} + \mathbf{8} + \mathbf{6}\mathbf{x}$ 

16. 
$$4(x+2) + \frac{3(2x+5)}{3(2x+5)} = 3x + 5(x+7)$$

4x + 8 + 6x + 15

Algebra I Solving Equations The SID Method 16. 4(x+2) + 3(2x+5) = 3x + 5(x+7)

4x + 8 + 6x + 15 =

16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$
  
 $4x + 8 + 6x + 15 = 3x$ 



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$

4x + 8 + 6x + 15 = 3x



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$

4x + 8 + 6x + 15 = 3x + 5x



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$

4x + 8 + 6x + 15 = 3x + 5x + 35



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$ 



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$ 



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$ 

**10x** 



Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 3510x

The SID MethodSSSstands forSSS</td

Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 3510x



Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 3510x + 23



Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 3510x + 23 =

The SID MethodSSSstands forSSS</td

16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$ 

10x + 23 =



16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x$ 

### Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 3510x + 23 = 8x



### Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 3510x + 23 = 8x + 35


## Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 3510x + 23 = 8x + 35



16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$ 

Subtract 8x

from

both sides.

16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x$ 

Subtract 8x from both sides.

16. 
$$4(x+2) + 3(2x+5) = 3x + 5(x+7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x + 23$ 

Subtract 8x from both sides.

16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x + 23 = 35$ 

Subtract 8x from both sides.

## Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 35 10x + 23 = 8x + 352x + 23 = 35



16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x + 23 = 35$ 

Subtract 23 from both sides.

16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x + 23 = 35$   
 $2x = 35$ 

2x + 23 = 352x = **The SID Method S** stands for **Simplify** the expression on each side.

**Subtract 23** 

from

both sides.

**I** stands for **Isolate** the variable.

16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x + 23 = 35$   
 $2x = 12$ 

Subtract 23

from

both sides.

### Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 35 10x + 23 = 8x + 35 2x + 23 = 352x = 12



### Algebra I Solving Equations The SID Method 16. 4(x + 2) + 3(2x + 5) = 3x + 5(x + 7) 4x + 8 + 6x + 15 = 3x + 5x + 35 10x + 23 = 8x + 35 2x + 23 = 352x = 12



16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x + 23 = 35$   
 $2x = 12$ 

5x + 35Divide<br/>both sides<br/>by 2



16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x + 23 = 35$   
 $2x = 12$   
 $x =$ 



# The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

16. 
$$4(x + 2) + 3(2x + 5) = 3x + 5(x + 7)$$
  
 $4x + 8 + 6x + 15 = 3x + 5x + 35$   
 $10x + 23 = 8x + 35$   
 $2x + 23 = 35$   
 $2x = 12$   
 $x = 6$ 

# The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.



**D** stands for **Divide** both sides by the coefficient of x.

17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$



17. 
$$5(3x-4) + 4x = 7x + 2(x + 5)$$
  
15x



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$
  
15x - 20



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$

15x - 20 + 4x



17. 
$$5(3x-4) + 4x = 7x + 2(x + 5)$$
  
15x - 20 + 4x =



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$
  
15x - 20 + 4x = 7x +



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$

$$15x - 20 + 4x = 7x +$$



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$

$$15x - 20 + 4x = 7x + 2x$$



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$

$$15x - 20 + 4x = 7x + 2x + 10$$



17. 
$$5(3x-4) + 4x = 7x + 2(x+5)$$
  
15x - 20 + 4x = 7x + 2x + 10



17. 
$$5(3x-4) + 4x = 7x + 2(x + 5)$$
  
15x - 20 + 4x = 7x + 2x + 10



17. 
$$5(3x-4) + 4x = 7x + 2(x + 5)$$
  
15x - 20 + 4x = 7x + 2x + 10

**19**x



17. 
$$5(3x-4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20$ 



17. 
$$5(3x-4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 =$ 



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 =$ 



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x$ 



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$ 



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$ 



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$ 


17. 
$$5(3x-4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$ 

Subtract 9x from both sides.



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x$ 

Subtract 9x from both sides.

# The SID MethodSstands forSimplifyIstands forIsolateIthe variable.

17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20$ 

Subtract 9x from both sides.



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$ 

Subtract 9x from both sides.



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$ 



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$ 

Add 20 to both sides.



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$   
 $10x =$ 

Add 20

to

both sides.



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$   
 $10x = 30$ 

Add 20

to

both sides.

The SID MethodSstands forSimplifyIstands forIsolateIthe variable.

17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$   
 $10x = 30$ 



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$   
 $10x = 30$ 



17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$   
 $10x = 30$ 

The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

Divide

**both sides** 

**by 10** 





# The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$   
 $10x = 30$   
 $x = 3$ 

Divide both sides by 10

# The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

17. 
$$5(3x - 4) + 4x = 7x + 2(x + 5)$$
  
 $15x - 20 + 4x = 7x + 2x + 10$   
 $19x - 20 = 9x + 10$   
 $10x - 20 = 10$   
 $10x = 30$   
 $x = 3$ 



18. 
$$4(x+5) + 3(x-9) = 35$$



18. 
$$4(x+5) + 3(x-9) = 35$$

## The SID MethodSstands for SimplifySthe expression on each side.

18. 
$$4(x+5) + 3(x-9) = 35$$

## The SID MethodSstands forSimplifySthe expression on each side.

18. 
$$4(x+5) + 3(x-9) = 35$$
  
4x



18. 
$$4(x+5) + 3(x-9) = 35$$

4x + 20 +



18. 
$$4(x+5) + 3(x-9) = 35$$

4x + 20 +



18. 
$$4(x+5) + 3(x-9) = 35$$

4x + 20 + 3x

## The SID MethodSStands for SimplifySthe expression on each side.

18. 
$$4(x+5) + \frac{3(x-9)}{3(x-9)} = 35$$

4x + 20 + 3x - 27



18. 
$$4(x+5) + 3(x-9) = 35$$

4x + 20 + 3x - 27 =



18. 
$$4(x+5) + 3(x-9) = 35$$

$$4x + 20 + 3x - 27 = 35$$



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$ 



18. 
$$4(x+5) + 3(x-9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$ 

**7**x



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x$ 



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x$ 



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7$ 



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 =$ 



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$ 



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$ 



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$ 

Add 7 to both sides.



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x = 7$ 



# The SID MethodSstands forSimplifyIstands forIsolateIthe variable.

18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x = 42$ 

Add 7 to both sides.

# The SID MethodSstands forSimplifyIstands forIsolateIthe variable.

18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x = 42$ 


18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x = 42$ 



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x = 42$ 

Divide both sides by 7



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x = 42$   
 $x =$ 

Divide both sides by 7

# The SID MethodSstands forSimplifyIstands forIsolateDstands forDivideboth sides by the coefficient of x.

18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x = 42$   
 $x = 6$ 

Divide both sides by 7



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x = 42$   
 $x = 6$ 



18. 
$$4(x + 5) + 3(x - 9) = 35$$
  
 $4x + 20 + 3x - 27 = 35$   
 $7x - 7 = 35$   
 $7x - 42$ 

Good luck on worksheet #8 !!

