

# Solving Equations Using Distributive Property

steps:

- ① Expand brackets using the distributive property
- ② Collect like terms
- ③ Isolate the variable using opposite operations and reverse BEDMAS
- ④ LS/RS check

Eg1)  $2(x+3) = 18$

$$2x + 6 = 18$$

$$\begin{array}{r} -6 \\ -6 \end{array}$$

$$2x = 12$$

$$\begin{array}{r} \frac{2x}{2} \\ \frac{12}{2} \end{array}$$

$$\boxed{x = 6}$$

LS	RS
$2(x+3)$	18
$2(6+3)$	
$2(9)$	
18	

Eg2)  $3(x+4) - 8 = 16 + 3$

$$3x + 12 - 8 = 16 + 3$$

$$3x + 4 = 19$$

$$\begin{array}{r} -4 \\ -4 \end{array}$$

$$3x = 15$$

$$\begin{array}{r} \frac{3x}{3} \\ \frac{15}{3} \end{array}$$

$$\boxed{x = 5}$$

LS	RS
$3(x+4) - 8$	$16 + 3$
$3(5+4) - 8$	19
$3(9) - 8$	
$27 - 8$	
19	

## Assignment

1.  $2(x+8) = 24$

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

3.  $2(4x-6) = 12+8$

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

5.  $60 = 4(x+5)$

6.  $9 = 3 + 2(2x-3)$