# Lesson 1-9

Objective - To solve equations using the addition property of equality.

Addition Property of Equality

If a = b, then a + c = b + c

or

Given a = b
and c = c
then a + c = b + c

Solve the equations below.

1) x - 3 = 11
+3 +3
x = 14

2) y - 5 = 14
+5 +5
y = 19

3) n - 2 = 16
+2 +2
n = 18

4) 11 = x - 5
+ 5 + 5
16 = x

5) 16 = n - 3
+3 +3
19 = n

6) 12 - 3 = k
9 = k

Solve the equations below.

1) x - 8 = 9
+8 +8
x = 17

2) 13 = n - 4
+4 +4
17 = n

3) k -23 = 17
+23 +23
k = 40

4) 5 - (2) = t
3 = t

5) n - 22 = 30
+22 +22
n = 52

6) 12 = w - 9
+9 +9
21 = w

Translate the sentence into an equation and solve.

1) The difference of k and 11 is 32.

k - 11 = 32
+ 11 +11
k = 43

2) Six less than t is 12 .

t - 6 = 12
+6 +6
t = 18

Copy and complete the transformation.

1) x - 5 = 9
x - 5 + [5] = 9 + [5]
x = [14]

2) n - 13 = 40
n – 13 + [13] = 40+ [13]
n = [53]

3) 16 = y - 7
16+ [7] = y – 7 + [7]
[23] = y

4) 5 = k - [2]
5 + 2 = k - [2] + [2]
[7] = k

Solve the equations below.

1) x + 2.1 = 7.9
- 2.1 - 2.1
x = 5.8

2) 16 = n - 3.4
+3.4 +3.4
19.4 = n

3) k - 30 = 17
+30 +30
k = 47

4) 11 - 4.2 = t
6.8 = t

5) n + 8.3 = 12
-8.3 -8.3
n = 3.7

6) 5.43 = w - 4.7
+4.7 +4.7
10.13 = w