

Warm up

Solve and verify.

1.  $-2 + 5x = 18$

$$\frac{5x}{5} = \frac{20}{5}$$

$$x = 4$$

LS	RS
$-2 + 5x$	18
$-2 + 5(4)$	
$-2 + 20$	
18	

LS=RS: ∴ x = 4

2.  $3a + 7 = 9$

$$\frac{3a}{3} = \frac{2}{3}$$

$$a = \frac{2}{3}$$

LS	RS
$3a + 7$	9
$3(\frac{2}{3}) + 7$	
$2 + 7$	
9	

LS=RS: ∴ a =  $\frac{2}{3}$

new examples

1.  $6 = \frac{a}{4} + 2$

$$(4)4 = \frac{a}{4}(4)$$

$$16 = a$$

2.  $\frac{v + 9}{3} = 8$

$$v + 9 = 24$$

$$v = 15$$

3.  $2(n + 5) = -2$

$$2n + 10 = -2$$

$$\frac{2n}{2} = \frac{-12}{2}$$

$$n = -6$$

try these

$$\begin{aligned}
 -2 &= 2 + \frac{v}{4} \\
 (4) \quad 4 &= \frac{v}{4} \quad (4) \\
 -16 &= v
 \end{aligned}$$

$$\begin{aligned}
 144 &= -12(x + 5) \\
 144 &= -12x - 60 \\
 204 &= -12x \\
 \frac{204}{-12} &= \frac{-12x}{-12} \\
 -17 &= x
 \end{aligned}$$

$$\begin{aligned}
 -1 &= (5 + x)(6) \\
 -6 &= 5 + x \\
 -11 &= x
 \end{aligned}$$