## Solving Two Step Equations

Unit 2: Equations and Inequalities

**Solve each equation:**

1. $1 + 7a = 71$

$-1 \quad -1$

$\frac{7a}{7} = \frac{70}{7}$

$\boxed{a = 10}$

2. $1 = 5 + \frac{m}{5}$

$-5 \quad -5$

$\left[-4 = \frac{m}{5}\right] \cdot 5$

$\boxed{-20 = m}$

3. $\left[-5 = \frac{-5+n}{2}\right] \cdot 2$

$-10 = -5 + n$

$+5 \quad +5$

$\boxed{-5 = n}$

4. $-78 = -7 + \frac{a}{1}$

$+7 \quad +7$

$\left[-71 = \frac{a}{1}\right] \cdot 1$

$\boxed{-71 = a}$

5. $-6 = \frac{n}{4} - 4$

$+4 \quad +4$

$\left[-2 = \frac{n}{4}\right] \cdot 4$

$\boxed{-8 = n}$

6. $-4 + 3x = 23$

$+4 \quad +4$

$\frac{3x}{3} = \frac{27}{3}$

$\boxed{x = 9}$

7. $\left[\frac{b+5}{10} = 2\right] \cdot 10$

$b + 5 = 20$

$-5 \quad -5$

$\boxed{b = 15}$

8. $1 = 1 + 7n$

$-1 \quad -1$

$\frac{0}{7} = \frac{7n}{7}$

$\boxed{0 = n}$

9. $-10 + \frac{p}{14} = -11$

$+10 \quad +10$

$\left[\frac{p}{14} = -1\right] \cdot 14$

$\boxed{p = -14}$

10. $-3p + 3 = 33$

$-3 \quad -3$

$\frac{-3p}{-3} = \frac{30}{-3}$

$\boxed{p = -10}$

11. $3 = \frac{n+6}{7}$ · 7

$21 = n + 6$
$-6 \quad -6$

$15 = n$

12. $-13 = -10 + \frac{n}{5}$
$+10 \quad +10$

$-3 = \frac{n}{5}$ · 5

$-15 = n$

13. $-12 = -9 + \frac{x}{6}$
$+9 \quad +9$

$-3 = \frac{x}{6}$ · 6

$-18 = x$

14. $-1 + \frac{a}{10} = -2$
$+1 \quad +1$

$\frac{a}{10} = -1$ · 10

$a = -10$

15. $-3 = \frac{n-8}{7}$ · 7

$-21 = n - 8$
$+8 \quad +8$

$-13 = n$

16. $-7 = \frac{x}{12} - 8$
$+8 \quad +8$

$1 = \frac{x}{12}$ · 12

$12 = x$

17. $\frac{x+5}{12} = -1$ · 12

$x + 5 = -12$
$-5 \quad -5$

$x = -17$

18. $\frac{x}{2} + 9 = 2$
$-9 \quad -9$

$\frac{x}{2} = -7$ · 2

$x = -14$

19. $\frac{6+b}{4} = 2$ · 4

$6 + b = 8$
$-6 \quad -6$

$b = 2$

20. $2 = 2a + 2$
$-2 \quad -2$

$\frac{0}{2} = \frac{2a}{2}$

$0 = a$