

CYU 2.3 Solving Linear Equations DAY ONE

Use when you get it right all by yourself  
*S* Use when you did it all by yourself, but made a silly mistake  
*H* Use when you could do it alone with a little help from teacher or peer  
*G* Use when you completed the problem in a group  
*X* Use when a question was attempted but wrong (get help)  
*N* Use when a question was not even attempted

CONCEPTS	BASIC	INTERMEDIATE	ADVANCED

Solve. Show all work to earn full credit or give a written explanation if you feel no work is required.

1.  $-3x + 1 = -2(4x + 2)$

$-1 = x$

2.  $15x - 5 = 7 + 12x$

$4 = x$

3.  $-(5x - 10) = 5x$

$x = 1$

4.  $3(2 - 5x) + 4(6x) = 12$

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

5.  $-4(n - 4) - 23 = -7$

$n = 0$

6.  $5 - 6(2 + b) = b - 14$

$b = 1$

7.  $6y - 8 = -6 + 3y + 13$

$y = 5$

8.  $-7n + 5 = 8n - 10$

$n = 1$

9.  $\frac{4}{5}x - \frac{8}{5} = -\frac{16}{5}$

$x = -2$

10.  $\frac{2}{9}x - \frac{1}{3} = 1$

$x = 6$

11.  $0.40x + 0.06(30) = 9.8$

$x = 20$

12.  $\frac{3(y+3)}{5} = 2y + 6$

$y = -3$

$$13. \frac{5}{2}x - 1 = x + \frac{1}{4}$$

$$x = \frac{5}{6}$$

$$16. \frac{x}{3} - 2 = \frac{x}{3}$$

$$\emptyset \text{ or } \{ \}$$

$$14. 0.60(z - 300) + 0.05z = 0.70z - 205$$

$$z = 500$$

$$17. 2(x - 5) = 2x + 10$$

$$\emptyset \text{ or } \{ \}$$

$$15. 14x + 7 = 7(2x + 1)$$

$$\mathbb{R} \text{ or } \infty$$

all real #'s

$$18. -5(4y - 3) + 2 = -20y + 17$$

$$\mathbb{R} \text{ or } \infty$$

all real #'s

Write each phrase as an algebraic expression. Use  $x$  for the unknown number.

19. Three times a number

$$3x$$

20. The difference of 8 and twice a number

$$8 - 2x$$

21. The quotient of  $-12$  and the difference of a number and 3

$$\frac{-12}{x - 3}$$

**CYU Reflection:** How far can you go: basic, intermediate, or advanced?

**Rate your mastery level!**

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

